



**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of

Docket No: Q55595

Kenichi MIYAZAKI

Appln. No.: 09/386,000

Group Art Unit: 3651

Confirmation No.: 9906

Examiner: Patrick H. MACKEY

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**REPLY BRIEF PURSUANT TO 37 C.F.R. § 41.41**

**MAIL STOP APPEAL BRIEF - PATENTS**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 41.41, Appellant respectfully submits this Reply Brief in response to the Examiner's Answer dated August 8, 2005. Entry of this Reply Brief is respectfully requested.

**Table of Contents**

STATUS OF CLAIMS .....	2
GROUND OF REJECTION TO BE REVIEWED ON APPEAL .....	3
ARGUMENT .....	5
CONCLUSION .....	41

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REPLY BRIEF UNDER 37 C.F.R. § 41.41  
U.S. Appln. No.: 09/386,000

**STATUS OF CLAIMS**

As noted in the Appeal Brief filed on June 22, 2005, claims 1-6, 13, 15-18, 26 and 31 are currently pending and are being appealed.

**GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

As noted in the Appeal Brief, the grounds of rejection to be reviewed on appeal are as follows:

1. Claims 1-6, 13, and 16-18 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite.
2. Claims 1, 5, 6, 16, 26, and 31 are rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 5,838,354 to Yamada et al. (hereinafter “Yamada”).
3. Claims 13, 18, 26, and 31 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by EP 0 727 375 to Orbons et al. (hereinafter “Orbons”).
4. Claims 13, 17, 18, 26, and 31 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by the IP-4000 device.
5. Claims 1, 3, 5, 6, 13, 17, 18, 26, and 31 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by the OCE 9400 device.
6. Claims 16, 26, and 31 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by JP 63-154558 to Takumi (hereinafter “Takumi”).
7. Claim 2 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Yamada in view of Orbons.

REPLY BRIEF UNDER 37 C.F.R. § 41.41  
U.S. Appln. No.: 09/386,000

8. Claims 13 and 17 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 938,885 to McCulley (hereinafter “McCulley”) in view of U.S. Patent No. 1,128,730 to Smedal (hereinafter “Smedal”).

9. Claim 15 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 2,300,276 to Hageman (hereinafter “Hageman”) in view of U.S. Patent No. 2,904,332 to Metzner (hereinafter “Metzner”).



**ARGUMENT**

**I. Rejection under 35 U.S.C. § 112, second paragraph**

Claims 1-6, 13, and 16-18 remain rejected as being indefinite under 35 U.S.C. § 112, second paragraph, because the height of the claimed sheet feeding area is allegedly unclear. Appellant respectfully submits that the claims satisfy the requirements of 35 U.S.C. § 112, second paragraph.

**A. Claim 1**

Claim 1 states that the paper feeding unit is located at a height that enables a user, who is approximately 170 cm tall and who is standing in front of the printer, to execute a paper feeding process, which includes replacing a roll paper. On page 3 of the Examiner's Answer, the Examiner contends that this phrase is unclear because the claim allegedly does not define the height of the paper feeding unit. Appellant respectfully disagrees.

For example, the claim states that the unit is located at a height that enables a user, who is approximately 170 cm tall and standing in front of the printer, to execute the paper feeding process. Such a limitation is clearly defines the metes and bounds of the claimed invention to those skilled in the art. Specifically, if a printer has a paper feed unit that is located at a height that does not enable a user, who is approximately 170 cm tall and standing in front of the printer, to execute the process, the limitation does not read on the printer. On the other hand, if the unit is located at a height that enables the user to execute the process, the limitation reads on the claim.

In *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565 (Fed. Cir. 1986), the

Federal Circuit held that an analogous claim limitation was definite under 35 U.S.C. § 112, second paragraph. In *Orthokinetics*, the patent-in-suit (*i.e.*, the '867 patent) related to a collapsible wheel chair, and claim 1 of the '867 patent states, in part:

1. In a wheel chair having a seat portion, a front leg portion, and a rear wheel assembly, the improvement wherein said front leg portion is so dimensioned as to be insertable through the space between the doorframe of an automobile and one of the seats thereof ....

*Id.* at 1568 (emphasis added).

Prior to the Federal Circuit appeal, the district court held that the “so dimensioned” language was indefinite because

an individual desiring to build a noninfringing travel chair cannot tell whether that chair violates the ['867] patent until he constructs a model and tests the model on vehicles ranging from a Honda Civic to a Lincoln Continental to a Checker cab. Without those cars, “so dimensioned” is without meaning.

*Id.* at 1575. However, the Federal Circuit disagreed and reversed the district court’s ruling because the “so dimensioned” limitation is definite and satisfies the requirements of 35 U.S.C. § 112, second paragraph. In its holding, the Federal Circuit noted that the claims require “that one desiring to build and use a travel chair must measure the space between the selected automobile’s doorframe and its seat and then dimension the front legs of the travel chair so they will fit in that particular space in that particular automobile.” *Id.* at 1576 (emphasis added). Moreover, the Court noted that the claims of the patent-in-suit “were intended to cover the use of the invention with various types of automobiles,” and the fact that “a particular chair on which the claims read may fit within some automobiles and not others is of no moment.” *Id.*

Since automobiles are made in various sizes and since the phrase “so dimensioned” is as

accurate as the subject matter permits because, the Federal Circuit held that the claim satisfies the requirements of 35 U.S.C. § 112, second paragraph. *Id.* Moreover, the Court noted that “[t]he patent law does not require that all possible lengths corresponding to the spaces in hundreds of different automobiles be listed in the patent, let alone that they be listed in the claims.” *Id.*

As described above, the claim in *Orthokinetics* relates to a wheel chair having a front leg portion that is “so dimensioned” as to be insertable between the doorframe of an automobile and a seat of the automobile. In other words, the claim defines the dimension of the front leg portion of the wheel chair by referring to something (*i.e.*, the automobile), which is external to the wheel chair.

Similarly, in the present application, claim 1 states that the paper feeding unit is located at a height that enables a user, who is approximately 170 cm tall and who is standing in front of the printer, to execute a paper feeding process, which includes replacing a roll paper. Therefore, as in *Orthokinetics*, the claim defines the dimension or height of the paper feeding unit of the printer by referring to something (*i.e.*, a user), which is external to the printer. In fact, the claim of the present application is “more definite” than the claim at issue in *Orthokinetics* because the claim actually specifies the height of the user (*i.e.*, 170 cm), whereas the claim at issue in *Orthokinetics* does not specify any dimensions of the automobile or the distance between the doorframe and the seat.

The Examiner also argues that, since the claim uses the “user” as a reference point for the height of the unit, he is unsure whether or not Appellant is claiming a person. (Page 3 of

Examiner's Answer). Appellant submits that the claim clearly claims a printer and not a human being, and as in the *Orthokinetics* claim, the claim simply defines the height of the paper feeding unit by referring to something that is external to the claimed invention.

On page 3 of the Examiner's Answer, the Examiner also seems to question whether the claim covers a printer when a user, who is 160 cm tall, uses the printer and if it covers a printer when a user, who is sitting or kneeling, uses the printer. Appellant submits that the claim covers the printer, and not any particular user that is using the printer. As long as the printer has a paper feeding unit is located at a height that enables a user, who is approximately 170 cm tall and who is standing in front of the printer to execute the paper feeding process, such limitation reads on the printer, regardless of whether a user who is 160 cm tall, who is sitting, who is kneeling, etc., is using the printer.

As noted in *Orthokinetics*, the fact that a particular wheel chair, which falls within the scope of the claims, "fit[s] within some automobiles and not others is of no moment." *Id.* at 1576. Similarly, in the present application, the fact that the printer is used by users that are not 170 cm tall and that are not standing is likewise of "no moment" with respect to the definiteness of claim 1.

Also, the Examiner responds to Appellant's arguments in the Appeal Brief on pages 15 and 16 of the Examiner's Answer. In his response, the Examiner states that he invited the Appellant to clearly define the height or range of heights of the printer but that Appellant declined to further amend the claims. However, such an amendment would unnecessarily narrow claims and is not necessary to satisfy the requirements of 35 U.S.C. § 112, second

paragraph. *See, e.g.*, M.P.E.P. § 2173.04.

Moreover, as described in an illustrative embodiment, the specification teaches that “the height of the user who is 170 mm tall is used to determine the height of the paper feeding unit....” (Page 11, lines 4-6, of the present application). Therefore, while the Appellant could have claimed the height of the paper feeding unit with specific ranges and numbers, it chose to claim the height based on the height of the user.

The Examiner also contends that claim 1 is indefinite because the height of the paper feeding unit is defined based on a “point of reference” (*i.e.*, a user who is standing and is 170 cm tall) which allegedly is not ascertainable. (Page 15 of the Examiner’s Answer). As explained above, in conjunction with *Orthokinetics*, the claimed “point of reference” of the user who is standing and is 170 cm tall is an ascertainable reference and satisfies the requirements of the 35 U.S.C. § 112, second paragraph.

In addition, the Examiner notes that one user, who is 170 cm tall, may have “extremely short arms as the result of an accident or birth defect such that he or she squat or sit down to execute the paper feeding process” and that another user may have normal length arms. (Page 16 of the Examiner’s Answer). Therefore, the Examiner argues that a manufacturer cannot determine whether or not his or her printer falls within the scope of claim 1.

Again, the *Orthokinetics* case squarely addresses and resolves the issue that the Examiner raises. First, deciding whether or not a claim is indefinite, 35 U.S.C. § 112, second paragraph, requires determining what one skilled in the art would understand the claim limitation to mean when the claim is read in light of the specification. *Id.* at 1576 (citing *Seattle Box Co. v.*

*Industrial Crating & Packing Inc.*, 731 F.2d 818, 826 (Fed. Cir. 1984)). Upon reviewing Fig. 1 of the present application and reading the description of the embodiments in the specification, one skilled in the art would clearly understand that the height of the paper feeding unit is determined based on a normally proportioned user who is 170 cm tall.

Second, *Orthokinetics* considered an argument virtually identical to the Examiner's hypothetical argument and rejected it. Specifically, in that case, the Federal Circuit acknowledged district court's conclusion that a manufacturer desiring to build a non-infringing wheel chair cannot tell whether his or her chair violates the patent-in-suit because it would require him to test the wheel chair to see if it is "so dimensioned" to fit within different types of vehicles "ranging from a Honda Civic to a Lincoln Continental to a Checker cab." *Id.* at 1575. Nonetheless, the Federal Circuit held that the claims of the patent-in-suit "were intended to cover the use of the invention with various types of automobiles," and the fact that "a particular chair on which the claims read may fit within some automobiles and not others is of no moment." *Id.* at 1576. In the present application, the fact that one user, who is 170 cm tall and who has "extremely short arms as the result of an accident or a birth defect," cannot execute the paper feeding process is likewise of "no moment," and claim 1 is definite.

**B. Claim 2**

Since claim 2 depends upon claim 1 and does not further describe the claimed height of the paper feeding unit, Appellant submits that it is patentable for the reasons presented above.

**C. Claim 3**

Claim 3 relates to a printer that has a paper feeding unit that is “located at a height” that enables a user standing in front of the printer to execute a paper feeding process including replacement of a roll paper. The Examiner contends that the claimed height is indefinite for the reasons that he maintains the height recited in claim 1 is indefinite.

Although claim 3 does not specifically recite the height of the user, Appellant submits that the claimed height satisfies the requirements of 35 U.S.C. § 112, second paragraph. While the specification describes an embodiment in which the height of the paper feeding unit is set based on a user that is 170 cm tall, the specification also describes an exemplary embodiment in which different types of users may use the printer. In this embodiment, the “paper feeding unit 30 can be adjusted, [and thus,] it can be set to provide an optimal height for an individual user.” (Page 11, lines 6-7, of the specification).

Therefore, the Appellant contemplated locating the height of the paper feeding unit with users having many different heights and dimensions. Therefore, limiting the invention by specifically claiming a particular height or range of heights of the paper feed unit would unduly narrow the scope of the claim. In other words, since reciting a specific height or range in the claim would prevent the claim from covering certain printers incorporating one of the novel features of the invention, the language of the claims is as precise as the claimed subject matter permits and is definite under 35 U.S.C. § 112, second paragraph.

Again, this issue was squarely before the Federal Circuit in the *Orthokinetics* case, and the Court found the claim to be definite. Specifically, the Court noted that the patentee intended

the claims to cover wheel chairs that are used with various types of automobiles and that a particular wheel chair, which falls within the claims, may fit within some automobiles and not fit in other automobiles. *Orthokinetics*, 806 F.2d 1576. Since the sizes of different automobiles vary, the Court held that claiming a dimension of the wheel chair based on a general dimension of an unspecified automobile is as precise as the subject matter permits.

Therefore, claim 3 is definite under 35 U.S.C. § 112, second paragraph, based on the arguments above. Also, claim 3 is definite based on the arguments presented above in conjunction with claim 1.

**D. Claim 4**

Appellant submits that claim 4 is definite for reasons that are similar to the reasons why claim 3 is definite.

**E. Claims 5 and 6**

Since claims 5 and 6 depend upon claim 1 and do not further describe the claimed height of the paper feeding unit, Appellant submits that they are patentable for the reasons presented above in conjunction with claim 1.

**F. Claims 13 and 16**

Appellant submits that claims 13 and 16 are definite for reasons that are similar to the reasons why claim 1 is definite. Also, since claims 13 and 16 specify that the user can set up the print medium without having to bend substantially at the waist, such claims are “further definite.”



**G. Claim 17**

Since claim 17 depends upon claim 16 and does not further describe the claimed height of the paper feeding unit, Appellant submits that it is patentable for the reasons presented above in conjunction with claim 16.

**H. Claim 18**

Appellant submits that claim 18 is definite for reasons that are similar to the reasons why claims 13 and 16 are definite.

**II. Rejection under 35 U.S.C. § 102(e) over Yamada**

Claims 1, 5, 6, 16, 26, and 31 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Yamada. Appellant submits that the claims are patentable over the reference.

**A. Claim 1**

**1. Yamada does not disclose the claimed ability to feed the roll of paper, sheet of paper, and stiff carton**

As recited in claim 1, the printer has a paper feeding unit capable of feeding at least one roll of paper, at least one substantially flat sheet of paper, and at least one stiff carton. However, as described in the Appeal Brief, Yamada does not suggest the features above. While Fig. 1 of Yamada does, in fact, describe a paper feed station 1 that can accommodate roll sheets 101, 102, and 103, it does not remotely suggest that the paper feed station 1 can feed anything other than a roll of paper, let alone a substantially flat sheet of paper and stiff carton.

On page 4 of the Examiner's Answer, the Examiner contends that Yamada discloses the claimed stiff carton as item 101 in Fig. 1, but Appellant respectfully disagrees. For example, Yamada clearly discloses that both the items 101 and 102 are rolls of paper. (Fig. 1; column 5,

lines 31-50). While column 5, lines 23-30, explains that the paper feed station can feed rolls of paper, film, or cloth, the reference still does not suggest feeding a substantially flat sheet of paper and a stiff carton. In addition, on page 4 of the Examiner's Answer, the Examiner does not even contend that Yamada's feeding station 1 is operable to feed a substantially flat sheet of paper.

On page 7 of the Examiner's Answer, the Examiner seems to maintain that column 5, lines 35-55, of Yamada teaches all three types of the recording media. However, this portion of Yamada merely describes the rolls of paper 101 and 102 and does not suggest that the station 1 can feed a substantially flat sheet of paper and stiff carton.

On page 16 of the Examiner's Answer, the Examiner contends that the claim language relating to the roll of paper, substantially flat sheet of paper, and stiff carton does not limit the claim and cites M.P.E.P. § 2115 in support of his position. However, M.P.E.P. § 2115 does not apply to the issues at hand, and the case law cited in the section are factually different from the facts of the present case.

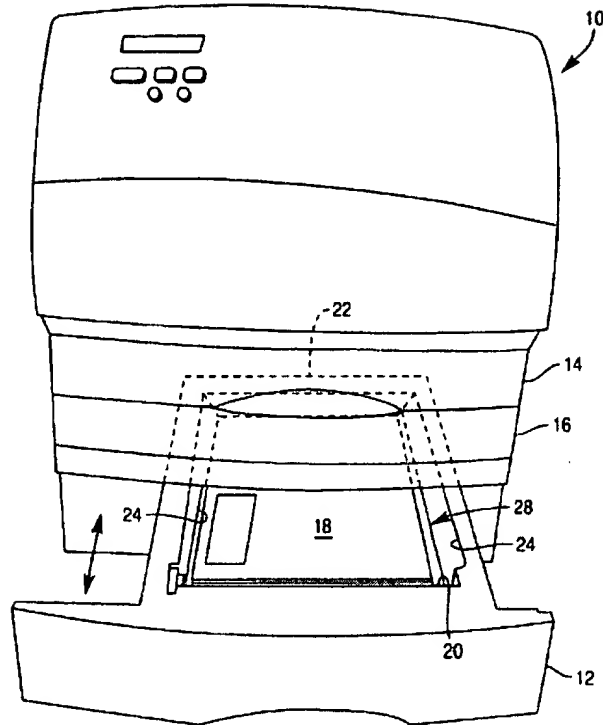
For example, in *In re Casey*, 370 F.2d 576 (C.C.P.A. 1967), the Court affirmed a rejection of a claim under 35 U.S.C. § 103 over the Kienzle reference. The claim related to a taping machine comprising a supporting structure and a brush. Also, the brush is attached to the supporting structure and is "formed with projecting bristles which terminate in free ends to collectively define a surface to which adhesive tape will detachably adhere...." *Id.* at 577. Although Kienzle does not suggest adhering adhesive tape to the free ends of the bristles, the Court upheld the obviousness rejection based on the reference because "[t]he references in claim 1 to adhesive tape handling do not expressly or impliedly require any particular structure in

addition to that of Kienzle.” *Id.* at 580-81 (emphasis added).

On the other hand, in the present application, the paper feeding unit of claim 1 is capable of feeding at least one roll of paper, at least one substantially flat sheet of paper, and at least one stiff carton, and such language implies that the claimed unit must have structure that enables it to feed these three types of recording media. For example, as shown in the illustrative, non-limiting embodiment in Figs. 1 and 3 of the present application, the paper feeding unit 30 accommodates rolls of paper 3 on spindles 4 and 5, and the unit 30 feeds the paper on the rolls 3 to the printing unit 7. (Fig. 1). Also, a user can place a sheet of stiff carton 21 or a sheet of paper on top of the paper roll cover 28 and feed it to the printing unit 7. (Fig. 3; page 10, lines 11-14; page 12, lines 9-11).

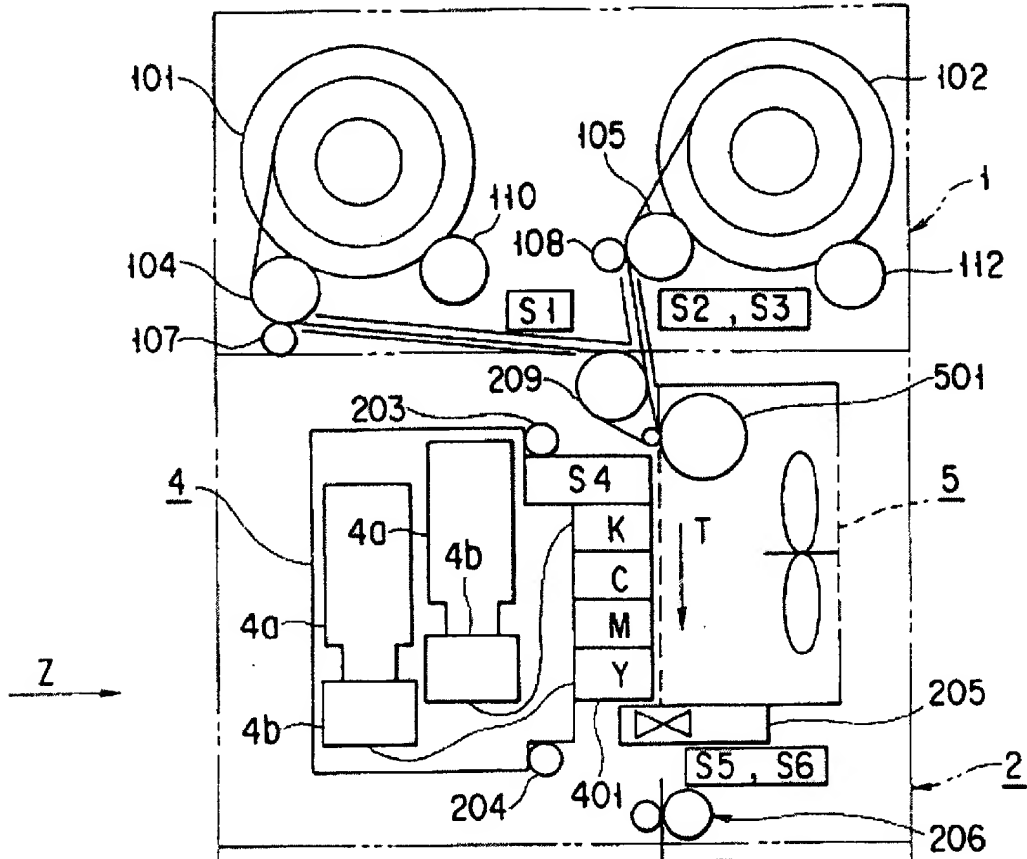
On the other hand, not all paper feeding units are capable of feeding a roll of paper, a substantially flat sheet of paper, and a stiff carton. For example, in U.S. Patent No. 6,939,068 to Rawlings et al. (“Rawlings”), Fig. 1 (reproduced below) shows an example of a printer 10 that has a paper feed tray 12, which is partly open in the figure and which feeds sheets of paper 18 to be printed.

**FIG. 1**



While the paper feed tray 12 has a structure that is capable of feeding sheets of paper 18, it clearly is not capable of feeding a roll of paper.

Also, as shown in Fig. 1 of Yamada (reproduced below), the paper feed station 1 accommodates rolls of paper 101 and 102 and feeds them to the recording station 2. During a printing operation, the paper from the roll 101 travels to the platen unit 5 by sequentially bending around the roller 104 and bending around the pinch holder 209. Similarly, the paper from the roll 102 travels to the unit 5 by bending around the roller 105 and the pinch holder 209.



As shown in the figure, no structure is provided to enable the paper feed station 1 to feed a sheet of paper and a stiff carton. In fact, the station 1 is incapable of feeding stiff carton because the stiff carton would not be able to bend around the rollers 104 and 105 and the pinch holder 209 without becoming jammed or damaged and/or without damaging components of the disclosed apparatus.

Since the claimed paper feeding unit (which is capable of feeding at least one roll of paper, at least one substantially flat sheet of paper, and at least one stiff carton) does not read on certain structures, such as the structure shown in the Rawlings and Yamada references and reads

on other structures, such as the structure shown in Figs. 1 and 3 of the present application, Appellant submits that the claim language expressly or impliedly requires particular structure. Therefore, M.P.E.P. § 2115 and the case law cited within the section, such as *In re Casey*, does not apply to the facts of the present appeal, and the claim language does, in fact, constitute claim limitations that the Examiner must consider in determining the patentability of the claim.

On page 17 of the Examiner's Answer, the Examiner argues that, even if the "roll of paper," "substantially flat sheet of paper," and "stiff carton" features are claim limitations, Yamada anticipates claim 1. Specifically, he notes that, on page 4 of the Amendment filed on May 10, 2004, Appellant stated that "a stiff carton is characterized as an example of a sheet of paper." The Examiner seems to interpret this statement as Appellant's admission that a stiff carton and a sheet of paper are the same thing.

Appellant respectfully disagrees. Assuming *arguendo* that a stiff carton is an example of a sheet of paper, Appellant's statement does not mean that a sheet of paper and a stiff carton are the same. For instance, while a bicycle is an example of a vehicle, vehicles include automobiles, airplanes, and spacecrafts. Thus, every vehicle is not a bicycle, and bicycles and vehicles are not the same.

In addition, claim 1 expressly recites the roll of paper, the sheet of paper, and the stiff carton as three separate items. Moreover, the non-limiting embodiments described in the specification distinguish the three items from each other. For instance, in the embodiment described on pages 9 and 10 of the present application, (1) a roll of paper has a width of about 210 mm to 1120 mm and has a diameter of 10 cm to 15 cm, (2) a sheet of paper has the same

width as the roll of paper, has a length of about 420 mm to 1580 mm, and has a thickness of less than 0.5 mm, and (3) a stiff carton has a thickness of 0.5 mm to 1.5 mm. Since both claim 1 and the specification treat the roll of paper, sheet of paper, and stiff carton as three separate items, the Examiner's argument that claim 1 only requires a roll of paper is unreasonable.

Furthermore, assuming *arguendo* that a stiff carton is a specific example of a sheet of paper, Yamada's disclosure of a generic roll of paper does not teach or suggest the specific stiff carton in claim 1. For example, under U.S. patent law, a claim that recites a container that is specifically filled with hydrogen gas is not anticipated by a prior art reference that discloses a container that is generally filled with gas, and a claim that specifically recites a metal rim supporting a rubber tire is not anticipated by a prior art reference that generally discloses a wheel. This basic proposition holds true despite the fact that hydrogen gas is a specific example of a gas and that a metal rim supporting a rubber tire is a specific example of a wheel.

On pages 17 and 18, the Examiner argues that, even if the roll of paper, sheet of paper, and stiff carton are three different items, Yamada anticipates claim 1 because the device shown in Fig. 1 of the reference is "capable of" feeding all three items. Appellant respectfully disagrees. For example, as described above, the Yamada device could not successfully feed a stiff carton by bending it around the rollers 104 and 105 and the pinch holder 209. Accordingly, claim 1 is patentable over the reference.

**2. Yamada does not disclose a paper feeding unit that is located at the claimed height**

Claim 1 states that the paper feeding unit is located at a height that enables a user, who is approximately 170 cm tall and standing in front of the printer, to execute a paper feeding

process. Yamada does not disclose any relationship between the paper feed station 1 and the height of a user and thus, does not suggest the claimed height. On page 4 of the Examiner's Answer, the Examiner does not allege that Yamada discloses this feature. Also, in the claim chart on page 7, the Examiner cites Fig. 1 as disclosing this limitation, but Fig. 1 does not illustrate a user and does not otherwise indicate the height of the station 1.

On page 18 of the Examiner's Answer, the Examiner states that "Yamada does not disclose anything that would prevent enables [sic: enabling] a user, who is approximately 170 cm tall, standing in front of the printer to execute the paper feeding process...." (Emphasis added). Since the Examiner has the burden of proving that Yamada discloses the claimed features, he must demonstrate that the claimed paper feeding unit is located at a height that enables the user to execute the paper feeding process. As such, his argument that Yamada does not disclose anything that prevents the user from executing the process does not even create a *prima facie* case that Yamada's paper feed station is located at the claimed height. For example, referring back to the wheel example discussed above, if the claim recites a metal rim supporting a rubber tire and the prior art generally discloses a wheel, the Examiner could not properly reject the claim over the prior art based on the argument that nothing in the prior art prevents the disclosed wheel from being a metal rim supporting a rubber tire.

In addition, Yamada does, in fact, seem to prevent the user from executing the paper feeding process that includes replacing a roll of paper and setting at least one of a sheet of paper and a stiff carton. For example, as described above, Yamada only discloses loading rolls or paper 101 and 102 and does not disclose setting the substantially flat sheets of paper or a stiff



carton. Thus, the paper feed station 1 of Yamada cannot be located at a height that enables the user to perform the claimed process.

**B. Claims 5 and 6**

Since claims 5 and 6 depend upon claim 1, Appellant submits that they are patentable at least by virtue of their dependency.

**C. Claim 16**

Claim 16 states that the sheet feeding area is positioned at a height at which a user, who is approximately 170 cm tall and standing in front of the printer, can set up a printing medium without having to bend substantially at the waist. As noted above, Fig. 1 and the other portions of Yamada do not disclose any relationship between the paper feeding station 1 and the height of a user and thus, does not suggest the claimed height.

In addition, even assuming *arguendo* that Yamada somehow discloses positioning the paper feed station 1 at a height at which a user, who is approximately 170 cm tall and standing in front of the printer, can set up the printing medium, claim 16 requires the user to be able to set up the printing medium without bending substantially at the waist. Since Yamada does not disclose any relationship between the paper feeding station 1 and the height of a user, it cannot suggest that the standing user can set up the printing medium without bending substantially at the waist.

**D. Claim 26**

Claim 26 recites a sheet feeding area that is operable to feed a plurality of paper rolls ranging in width from 210 mm to 1120 mm, a substantially flat sheet of paper ranging in length from 420 mm to 1580 mm, and at least one stiff carton ranging in length from 420 mm to 730

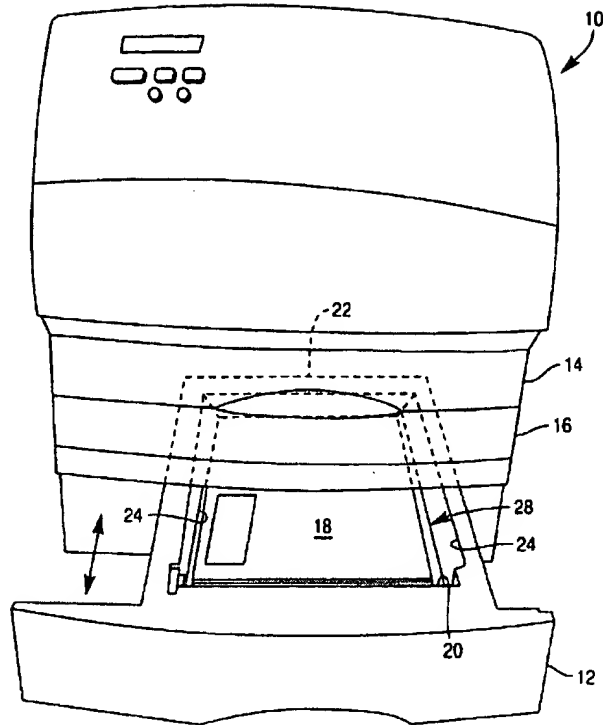
mm. Yamada does not even remotely disclose the claimed sheet feeding area that is able to feed the claimed sheet of paper ranging in length from 420 mm to 1580 mm or the stiff carton ranging in length from 420 mm to 730 mm, and the portions of the reference that the Examiner cites on page 12 of the Examiner's Answer does not suggest these types of media or their respective dimensions.

On pages 18 and 19 of the Examiner's Answer, the Examiner argues that the claimed media and their dimensions do not constitute claim limitations because they impart no structural limitations to the claim. Appellant's respectfully disagree.

For reason that are similar to the reasons presented in conjunction with claim 1, a sheet feeding area that is operable to feed a plurality of paper rolls, a substantially flat sheet of paper, and a stiff carton imparts structure to the claim because some printers cannot feed multiple paper rolls (such as the Rawlings device), other printers cannot feed a sheet of paper (such as the Yamada device), and yet other printers cannot feed stiff carton (such as the Yamada device). On the other hand, some printers can feed multiple paper rolls, a sheets of paper, and a stiff carton, such as the printer shown in Figs. 1 and 3 of the present application. Therefore, the recording media do impart structural limitations to the printer recited in claim 26.

Also, the dimensions of the recording media likewise impart structure to the claimed printer. For example, as shown in Fig. 1 of Rawlings (reproduced below), if the paper feed tray 12 of the printer 10 has a length that can accommodate only "A4" sized paper (which is 297 mm long), the tray 12 would not be able to feed a substantially flat sheet of paper ranging in length from 420 mm to 1580 mm.

**FIG. 1**



Accordingly, claim 26 would not read on the Rawlings printer, and thus, the claimed dimensions do, in fact, impart structural limitations to the printer.

On page 19 of the Examiner's Answer, the Examiner argues that, even if the claimed features limit the claim, Yamada anticipates claim 26 because the claim only requires a roll of paper and does not require a substantially flat sheet of paper or a stiff carton. The Examiner basis this arguments on Appellant's statement in the Amendment filed on May 10, 2004, and discussed above. Appellant respectfully submits that the Examiner's argument is improper for the reasons presented above.

In addition, even assuming *arguendo* that the three types of the claimed recording media

read on the rolls of paper 101, 102, and 103 in Yamada, the reference does not suggest all of the claimed dimensions for the media. For example, claim 26 states that the stiff carton ranges in length from 420 mm to 730 mm. The Examiner contends that column 5, lines 45-50, suggest this dimension, but this disclosure only describes the widths of the rolls 101, 102, and 103.

Accordingly, Yamada does not disclose or suggest the features of claim 26.

Finally, on page 19 of the Examiner's Answer, the Examiner contends that Yamada anticipates claim 26 because it does not disclose anything that would render it incapable of feeding the claimed recording media. Appellant respectfully disagrees because this type of proof does not set forth a *prima facie* case of unpatentability and is incorrect technically incorrect for the reasons presented above.

**E. Claim 31**

Claim 31 depends upon claim 26, and thus, it is patentable at least by virtue of its dependency. Also, claim 31 is patentable for additional reasons.

For example, claim 31 states that flat sheet of paper has a thickness of less than 0.5 mm and that the stiff carton has a thickness ranging from 0.5 mm to 1.5 mm. The Examiner presents absolutely no proof that the print feed station 1 in Yamada can feed a stiff carton having the claimed thickness.

In addition, on page 19 of the Examiner's Answer, the Examiner contends that the stiff carton and the sheet of paper are the same thing. However, since claim 31 states that the paper has a thickness less than 0.5 mm and that the carton has a thickness ranging from 0.5 mm to 1.0 mm, the paper and carton clearly are not the same thing. As such, no matter how one rolls,

stiffens, or flattens a sheet of paper having a thickness of 0.5 mm, he or she cannot produce a carton having a thickness ranging from 0.5 mm to 1.0 mm. Therefore, Yamada does not disclose or teach the features in claim 31.

### **III. Rejection under 35 U.S.C. § 102(b) over Orbons**

Claims 13, 18, 26, and 31 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Orbons. Appellant submits that the claims are patentable over the reference.

#### **A. Claim 13**

Claim 13 states that the printer comprises a sheet feeding area that is positioned at a height at which a user, who is approximately 170 cm tall, can set up a printing medium without having to bend substantially at the waist when the user is standing erect in front of the printer and standing substantially at ground level. On the other hand, Orbons does not disclose or suggest the features above.

For example, as noted in the Appeal Brief, Figs. 1 and 2 of Orbons show a channel 35 that is formed in a paneling part or worktop 33, and the worktop 33 is formed at a “working height for a standing operator.” (Fig. 1; abstract; column 3, lines 34-36). The operator can place a roll of print media 16 in the channel 35 so that the operator can place a spindle 31 through a hollow core 30 of the roll 16 before loading the roll 16 into the feed unit 2. (Fig. 1; abstract; column 3, lines 36-40; column 4, line 54, to column 5, line 2). Since the feed unit 2 is located below the worktop 33 with the channel 35, the operator must significantly bend to load the rolls 16. (Fig. 1; column 5, lines 2-7). Accordingly, claim 13 is patentable over the reference.

Also, Appellant submits that the arguments above in conjunction with the rejections

under 35 U.S.C. § 112, second paragraph, and under 35 U.S.C. § 102(e) over Yamada refute the points that the Examiner raises on pages 20 and 21 with respect to claim 13.

**B. Claim 18**

Since claim 18 contains features that are similar to the features contained in claim 13, Appellant submits that claim 18 is patentable for similar reasons.

Also, claim 18 further states that a paper feeding path extends straight from the paper feeding area to the paper discharge area via a printing area. On the other hand, as clearly shown in Fig. 1 of Orbons, the paper feeding path does not extend straight from the feed unit 2 via the printing area 1 to the discharge unit 10. Therefore, claim 18 is further patentable over Orbons.

In addition, Appellant submits that the previous arguments refute the points that the Examiner raises on pages 20 and 21 with respect to claim 18.

**C. Claim 26**

Claim 26 recites a sheet feeding area that is operable to feed a plurality of paper rolls ranging in width from 210 mm to 1120 mm, a substantially flat sheet of paper ranging in length from 420 mm to 1580 mm, and at least one stiff carton ranging in length from 420 mm to 730 mm. On the other hand, Orbons merely discloses feeding rolls of print media, and thus it does not suggest the claimed sheet feeding area that is able to feed a substantially flat sheet of paper or stiff carton.

Moreover, as described above, the paper feed path from the feed unit 2 to the discharge unit 10 contains sharp curves. Therefore, Orbons seems to teach away from feeding a stiff carton for the reasons presented above. Moreover, nothing in the reference suggests the ability to feed a

substantially flat sheet of paper. Accordingly, Appellant submits that claim 26.

Also, Appellant submits that the previous arguments refute the points that the Examiner raises on pages 20 and 21 with respect to claim 26.

**D. Claim 31**

Claim 31 depends upon claim 26, and thus, it is patentable at least by virtue of its dependency. Also, since Orbons is completely devoid of any teachings regarding the thicknesses recited in claim 31, Appellant submits that the claim is further patentable.

**IV. Rejection under 35 U.S.C. § 102(b) over the IP-4000 device publication**

Claims 13, 17, 18, 26, and 31 have been rejected under 35 U.S.C. § 102(b) as being anticipated by IP-4000 device publication. Appellant submits that the claims are patentable over the reference.

**A. Claim 13**

Appellant submits that the arguments presented in the Appeal Brief and the arguments above refute the Examiner's arguments in the Examiner's Answer regarding claim 13.

**B. Claim 17**

Claim 17 states that, in the printer, the paper feeding area is located in an upper rear portion of the printer, and the paper discharge area is located in a lower front portion of the printer. On page 22 of the Examiner's Answer, the Examiner maintains that the figure in the upper right corner of page 2 of the IP 4000 brochure discloses that the paper discharge area is located at the lower front portion of the printer, but Appellant respectfully disagrees. For

example, as shown on the cover page and the figure that the Examiner references, the discharge area is located at a lower middle portion of the printer.

Accordingly, for the above reasons, as well as the reasons presented in the Appeal Brief, Appellant submits that claim 17 is patentable.

**C. Claim 18**

Claim 18 states that the printer comprises a paper feeding path that extends straight from the paper feeding area to the paper discharge area via the printing area. The IP 4000 device brochure does not illustrate the paper feeding path from the paper feeding area to the paper discharge area, and thus, the brochure does not suggest the path recited in claim 18. In fact, upon close examination of the location of the direction in which the paper leaves the rollers (in the figure at the middle left of the second page of the brochure) and the location of the paper discharge area (in the upper right figure on the second page), the path probably has substantial curves along the paper feeding path.

Accordingly, for the above reasons, as well as the reasons presented in the Appeal Brief, Appellant submits that claim 17 is patentable.

**D. Claim 26**

Claim 26 recites a sheet feeding area that is operable to feed a plurality of paper rolls ranging in width from 210 mm to 1120 mm, a substantially flat sheet of paper ranging in length from 420 mm to 1580 mm, and at least one stiff carton ranging in length from 420 mm to 730 mm. On the other hand, the IP 4000 device brochure merely discloses feeding rolls of print media, and thus it does not suggest the claimed sheet feeding area that is able to feed a



substantially flat sheet of paper or stiff carton.

Moreover, as described above, the paper feed path probably contains sharp curves, and thus, the brochure seems to teach away from feeding a stiff carton for the reasons presented above. Also, nothing in the reference suggests the ability to feed a substantially flat sheet of paper. Accordingly, Appellant submits that claim 26 is patentable over the reference.

Also, Appellant submits that the previous arguments refute the points that the Examiner raises on pages 22-24 with respect to claim 26.

**E. Claim 31**

Claim 31 depends upon claim 26, and thus, it is patentable at least by virtue of its dependency. Also, since the IP 4000 device brochure is completely devoid of any teachings regarding the thicknesses recited in claim 31, Appellant submits that the claim is further patentable.

**V. Rejection under 35 U.S.C. § 102(b) over the OCE 9400 device**

Claims 1, 3, 5, 6, 13, 17, 18, 26, and 31 have been rejected under 35 U.S.C. § 102(b) as being anticipated by OCE 9400 device. Appellant submits that the claims are patentable over the reference.

**A. Preliminary comments regarding OCE 9400 device publications**

The Microstation Magazine (MSM Online) printout, which describes the OCE 9400 device, is presumably prior art to the present application. However, the Digital ES printout, which describes technical specifications of the OCE 9400 device and which is dated July 2004, clearly is not prior art. Since there is no indication whether or not the features, specifications,

etc. of the OCE 9400 changed during the seven years that elapsed between the two publications, Appellant submits that the information contained in the Digital ES printout is not prior art and that the rejections relying on this publication are improper on this basis alone. Furthermore, assuming *arguendo* that the Digital ES publication is prior art, Appellant submits that the claims are patentable over the OCE 9400 device.

**B. Claim 1**

Claim 1 states that the paper feeding unit is operable to feed a stiff carton. The Examiner contends that the Digital ES publication suggests this feature because it states that the printer has a “paper feed by pass and feeds thick originals (stiff carton).” (Page 8 of Examiner’s Answer). Appellant submits that the Examiner is misinterpreting and/or misapplying the teachings of the reference. For example, the publication shows two tables, and the left table has two columns. One row of the left table states “Thick or Solid Originals – Yes”, and another row states “Manual Paper By-Pass – Yes.” Such a vague disclosure clearly does not suggest a stiff carton, let alone a paper feed unit is operable to feed a stiff carton.

In addition, the User Manual for the OCE 9400 device<sup>1</sup> states that the device performs a printing operation and a copying operation. Moreover, page 53 of the User Manual explains that a user makes copies by “[i]nser[t]ing the original, face down and aligned to the right, along the original guide on the scanner feed table....” Since the Digital ES publication mentions “Thick or Solid Originals,” it seems to imply that such originals are originals to be copied, rather than print

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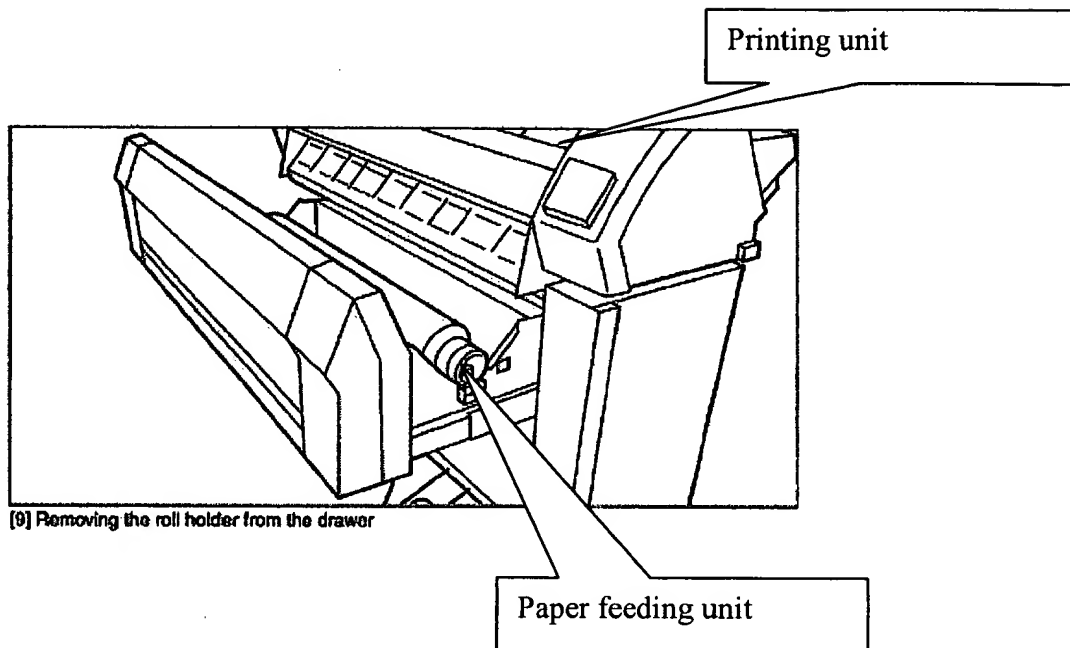
<sup>1</sup> Appellant’s representative recently discovered the User Manual on the Internet and is enclosing a complete copy of the User Manual with this Reply Brief. Also, Appellant’s arguments based on the User Manual should not be interpreted as any type of admission that the User Manual is prior art.

media. Therefore, while the OCE 9400 may have a paper feeding unit that feeds rolls of paper to be printed, the paper feeding unit does not appear to be the same device as the scanner feed unit. Therefore, even if the vague disclosure of the Digital ES publication suggests a stiff carton, the scanner feed table on which the “thick original” is placed does not suggest the paper feeding unit that is operable to feed a roll of paper.

Moreover, since the scanner feed table is used to scan originals for copying purposes, a paper feeding path clearly would not extend from the scanner feed table to the discharged paper stacking unit via the printing unit. Thus, the scanner feed table further does not suggest the paper feeding unit of claim 1.

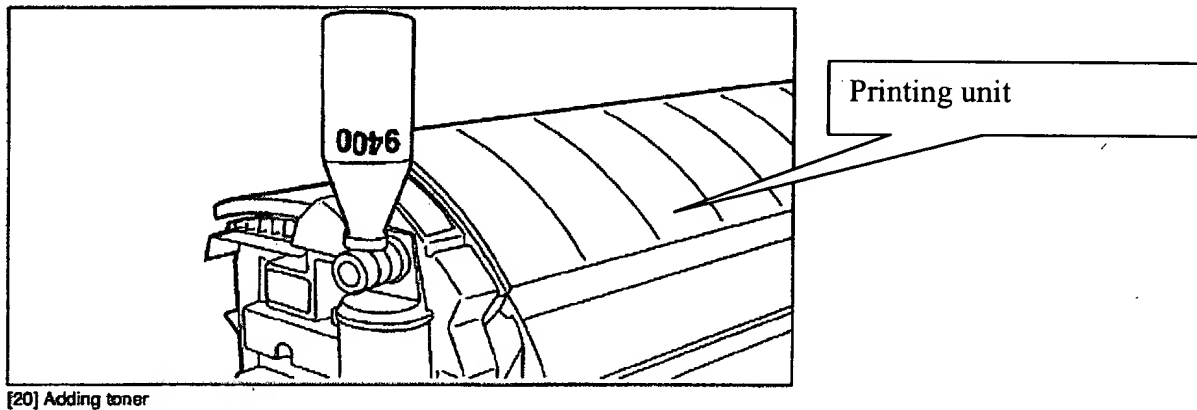
Also, claim 1 states that that the printer has a printing unit that is located below the paper feeding unit. On page 7 of the Examiner’s Answer, the Examiner contends that the figure shown on page 4 of the Microstation Magazine printout showing the OCE 9400 device suggests this feature, but Appellant respectfully disagrees.

First, the figure does not clearly show the location of the printing unit and the paper feeding unit, and thus, one cannot determine whether or not the printing unit is located above or below the paper feeding unit. Also, as shown in the figure on page 38 of the User Manual for the OCE 9400 device (an annotated version of which is reproduced below), a roll of paper is loaded into the paper feeding unit of the OCE 9400 device by opening a drawer, which appears to be located below the printing unit of the device.



Furthermore, as shown in the figure on page 49 of the User Manual (an annotated version of which is reproduced below), a user refills the toner for the printer near the top of the OCE 9400 device, which further suggests that the printing unit is located above the paper feeding unit.

4 Move the toner bottle to a vertical position (see figure 19) and 20).



Accordingly, the OCE 9400 device seems to have a printing unit that is located above the paper feeding unit and thus, does not suggest the relative orientation of the claimed units.

Also, claim 1 states that the paper feeding path extends in a substantially straight line

from the paper feeding unit to the discharged paper stacking unit via the printing unit. However, since page 4 of the Microstation Magazine printout and the User Manual suggest that both the alleged discharge paper stacking unit and the paper feeding unit of the OCE 9400 device are located below the printing unit, Appellant submits that the paper feeding path does not extend in a substantially straight line as recited in claim 1.

Accordingly, for at least the reasons presented above, Appellant submits that claim 1 is patentable.

**C. Claim 3**

Since claim 3 contains features that are similar to the features discussed above in conjunction with claim 1, Appellant submits that the claim is likewise patentable over the OCE 9400 device.

**D. Claims 5 and 6**

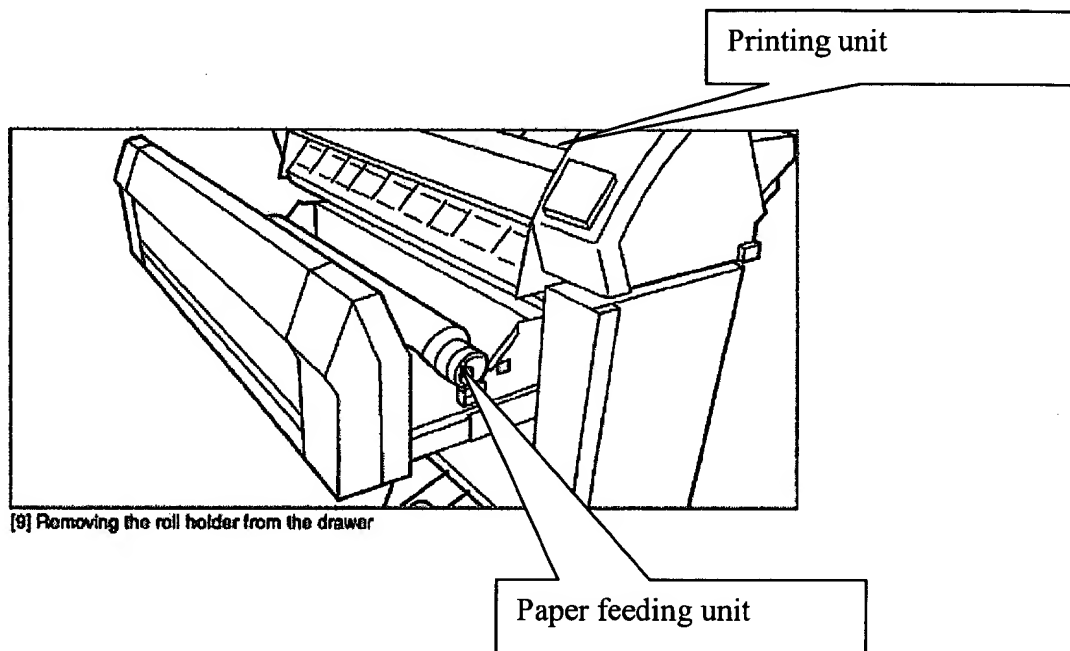
Since claims 5 and 6 depend upon claim 1, Appellant submits that they are patentable at least by virtue of their dependency.

**E. Claim 13**

Claim 13 states that the printer comprises a sheet feeding area that is positioned at a height at which a user, who is approximately 170 cm tall, can set up a printing medium without having to bend substantially at the waist when the user is standing erect in front of the printer and standing substantially at ground level. Appellant submits that the OCE 9400 device does not disclose or suggest this feature.

For example, while the Digital ES publication indicates that the height of the printer is

44", this height is the height at the uppermost surface of the printer and not the height of the paper feeding unit. Since the paper feeding unit is located well below the printing unit, as shown in the annotated figure in the User Manual (reproduced below), Appellant submits that the OCE 9400 device does not disclose the claimed height.



**F. Claim 17**

Claim 17 states that the paper feeding area is located in an upper rear portion of the printer. On the other hand, as illustrated in the annotated figure above, in the OCE 9400, the paper feeding unit appears to be located below the printing unit. Therefore, it is not disposed in an upper rear portion of the printer and does not teach the claimed paper feeding unit.

**G. Claim 18**

Claim 18 recites a paper feeding area having a height that is similar to the height recited in claim 13 and recites a paper feeding path that is similar to the paper feeding path recited in

claim 1. Accordingly, Appellant submits that claim 18 is patentable for reasons that are similar to the reasons presented above.

**H. Claim 26**

Claim 26 states that a sheet feeding unit is operable to feed a paper rolls, a substantially flat sheer of paper, and stiff carton. Appellant submits that the OCE 9400 device does not suggest a sheet feeding area operable to feed a stiff carton for reasons that are similar to the reasons discussed above in conjunction with claim 1.

**I. Claim 31**

Since claim 31 depends upon claim 1, it is patentable at least by virtue of its dependency. Also, since the OCE 9400 device does not suggest feeding a stiff carton, Appellant submits that it does not suggest a stiff carton having the claimed thickness.

**VI. Rejection under 35 U.S.C. § 102(b) over Takumi**

Claims 16, 26, and 31 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Takumi. Appellant submits that the claims are patentable over the reference for the reasons presented in the Appeal Brief. Also, Appellant submits that the arguments above refute the points that the Examiner raises on pages 24 and 25 of the Examiner's Answer.

**VII. Rejection under 35 U.S.C. § 103(a) over Yamada and Orbons**

Claim 2 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamada and Orbons. Since claim 2 depends upon claim 1 and since Orbons does not cure the deficient teachings of Yamada with respect to claim 1, Appellant submits that claim 2 is patentable.

**VIII. Rejection under 35 U.S.C. § 103(a) over McCulley and Smedal**

Claims 13 and 17 have been rejected as being unpatentable over McCulley and Smedal.

Appellant submits that the claims are patentable over the references.

**A. Claim 13**

Claim 13 states that the printer comprises a sheet feeding area that is positioned at a height at which a user, who is approximately 170 cm tall, can set up a printing medium without having to bend substantially at the waist when the user is standing erect in front of the printer and standing substantially at ground level. The Examiner acknowledges that McCulley does not suggest the claimed height but contends that Smedal does.

Appellant respectfully submits that Smedal does not suggest the claimed height of the sheet feeding area for the reasons contained in the Appeal Brief. Also, Appellant further submits that Figs. 3 and 5 of Smedal clearly show that the vertical leg 3 cannot be extended to raise the frame 5 holding the paper rolls 27 to the claimed height. Specifically, as noted in the Appeal Brief, the leg 3 can be extended at any desired elevation within the hollow post 2. (Fig. 5; column 2, lines 86-89). Also, as shown in Fig. 3, the height of the hollow post 2 (including the hollow portion within the base 1) is about one half of the height of a typewriter (shown in phantom lines). Therefore, if the bottom of the leg 3 is extended to the very top of the hollow post 2, the frame 5 positions the rolls 27 slightly above the typewriter.

Clearly, if the typewriter is placed at ground level, the frame 5 would not be positioned at a height at which a user, who is approximately 170 cm tall, can set up a printing medium without having to bend substantially at the waist. when the user is standing erect in front of the printer



and standing substantially at ground level. Accordingly, claim 13 is patentable over McCulley and Smedal.

**B. Claim 17**

Since claim 17 depends upon claim 13, it is patentable at least by virtue of its dependency. Also, since both McCulley and Smedal show that the paper discharge area is located above the typewriters, they do not suggest the claimed discharge area that is located in a lower front portion of the typewriter.

**IX. Rejection under 35 U.S.C. § 103(a) over Hageman and Metzner**

Claim 15 has been rejected as being unpatentable over Hageman and Metzner. Appellant submits that the claim is patentable over the references.

Claim 1 states that a sheet feeding area is operable to feed at least a roll of paper, a sheet of paper and a stiff carton toward a printing unit at which printing is performed thereon. On the other hand, neither Hageman nor Metzner suggest the claimed features.

For example, Fig. 4 of Hageman shows a device that supplies stacked print media (*i.e.*, record strips S and carbon strips C) to a typewriter so that a user can type an original document and simultaneously make a carbon copy of the document. However, as clearly shown in the figure, the recording media S and C significantly bend as the guide plates 42 guide it to the area where the user types onto the media S and C. (Figs. 1, 2, and 4). Accordingly, Hageman teaches away from being able to feed a stiff carton for the reasons mentioned above.

Metzner relates to a device that types information onto a recording medium 14, and the recording medium 14 comprises a stack of record strip elements R and interleaved carbon strip

elements C. As shown in Figs. 1 and 7, the device supplies the recording medium 14 to a recording machine 11 and types information onto the medium 14 as it travels around a platen shaft 97. Then, the device supplies the medium 14 over a booster roller 16 and separates the individual elements R and C of the medium 14. The device respectively feeds the elements R along guides 22 to form refold packs 26 and respectively feeds the elements C along guides 23 towards a spindle 28. (Column 2, line 63, to column 3, line 8).

However, as in Hageman, Fig. 7 of Metzner shows that the recording medium 14 significantly bends around the platen shaft 97. Therefore, Metzner teaches away from being able to feed a stiff carton for the reasons mentioned above.

Also, claim 15 states that the cover member covers a first feeding path for a roll of paper. The Examiner contends that the that housing 45 shown in Fig. 4 of Hageman show this feature, but Appellant disagrees. For example, the housing 45 cover a carbon roll 46, not a roll of paper. Furthermore, as described above, Hageman expressly uses the carbon roll 46 to create a carbon copy of a document along with the document.

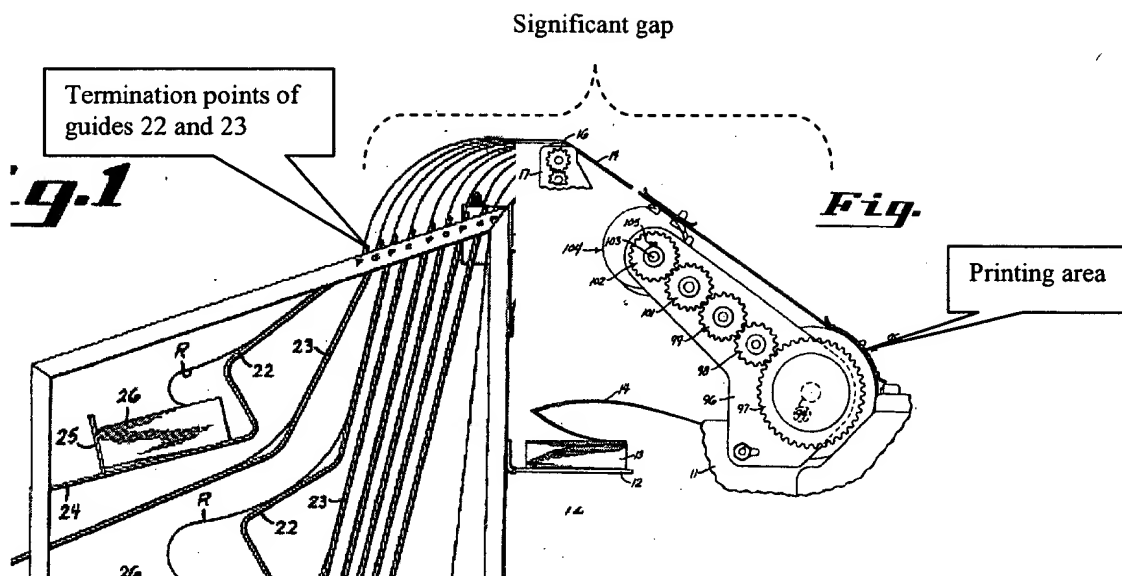
In addition, the Examiner relies on the teachings of Metzner to suggest connecting the Hageman's housing 45 for the carbon roll 46 with Hageman's guide plate 42. (Pages 27-28 of Examiner's Answer). However, Appellant submits that such a modification would contradict the intended operation of the Hageman device. For example, as described on page 3, left column, lines 22-50, and page 4, right column, lines 34-44, of Hageman, the housing 45 has pins 53 which slidably engage slots 54 of the end plates 44 of the carriage 43 so that the housing 45 can be inserted into and removed from the carriage 43. (*See also* Figs. 4 and 5). Thus, when a user

needs to replace the carbon roll 46, he or she removes the entire housing 45 from the carriage 43, replaces the carbon roll 46, and reinserts the entire housing back into the carriage 43. (Page 4, right column, lines 34-44).

Accordingly, if one modified Hageman as the Examiner suggests, the housing 45 would be connected to the guide plates 42 via Metzner's guides 22 and 23, and thus, a user could not remove the housing 45 from the carriage 43 to replace the carbon roll 46.

In addition, the Examiner maintains that one skilled in the art would have been motivated to combine Hageman and Metzner to form one continuous cover member from the paper storage area to the printing unit, but Appellant disagrees. For example, the guide plates 42 and the housing 45 shown in Fig. 4 of Hageman are located upstream from the printing area. On the other hand, the guides 22 and 23 in Metzner are located downstream from the printing area. Thus, one skilled in the art would not look to the teachings of Metzner to modify the upstream guide design of Hageman.

Also, Appellant submits that neither Hageman nor Metzner suggests a continuous cover member between the paper storage area and the printing unit. Specifically, in Hageman, a significant gap exists between the housing 45 and the guide plate 42. Likewise, in Metzner, a significant gap exists between the printing unit and the guides 22 and 23 as shown in the annotated versions of Figs. 1 and 7 (reproduced below).



As shown in the figures, the guides 22 and 23 terminate at the “termination points” and nothing exists to guide the recording medium 14 from the printing area to the guides 22 and 23.

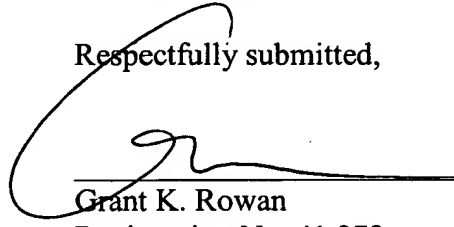
Since neither Hageman nor Metzner suggests a continuous cover member between a paper storage area and the printing area, one skilled in the art would not have been motivated to combine the teachings of the references to create such a continuous member. Accordingly, the Examiner’s proposed motivation to combine the references is improper, and one skilled in the art would not have been motivated to combine the teachings of the references.

REPLY BRIEF UNDER 37 C.F.R. § 41.41  
U.S. Appln. No.: 09/386,000

**CONCLUSION**

For the above reasons as well as the reasons set forth in Appeal Brief, Appellant respectfully requests that the Board reverse the Examiner's rejections of all claims on Appeal. An early and favorable decision on the merits of this Appeal is respectfully requested.

Respectfully submitted,



Grant K. Rowan  
Registration No. 41,278

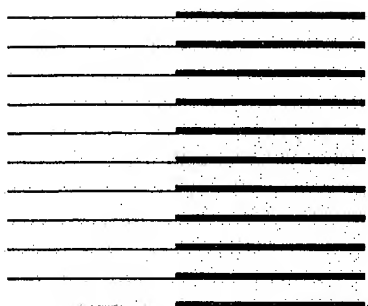

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WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

Date: October 11, 2005



# Océ 9400

*User Manual*





## Océ-Technologies B.V.

This manual contains a description of the Océ 9400 system and a detailed explanation of the plot functions. The introduction (chapter 1), gives a general description of the working methods employed in using the copier and we recommend that you read at least this chapter.

### Overview of copier parts on the covers

To assist you in quickly identifying the various parts of the copier/printer and the functions on the operating panel, there is an illustration of the Océ 9400 on the inside front cover and an illustration of the operating panel on the inside back cover, both of which can be folded out.

### Safety Information

This manual contains the following safety information:

- Appendix B lists 'Instructions for safe use'. *We advise you to read this information before you start to actually use the copier.* Technical safety information such as safety data sheets can also be found in appendix B.
- Where applicable, cautions and warnings are used throughout this manual to draw your attention to the safety precautions which you should follow.

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# Table of Contents

## Chapter 1

### Getting started

The Océ 9400 printer 10

The printer operating panel 11

Buttons 12

Display 12

The Océ 9400 copier 14

The scanner operating panel 15

Stand-by mode 16

Buttons and functions 16

Switching the copier on and off 18

Switching the printer on/off 20

## Chapter 2

### Installing the printer

Connecting the printer to your host environment 22

Centronics 23

Serial 24

Handshake protocol 24

Baud rate 25

Bits combination 26

Serial parity and stop bits 26

Port type 27

Turnaround delay 28

Inter-character delay 28

SCSI 30

Configuring the printer's memory 32

Input buffer 32

Bitmap buffer 33



---

### **Chapter 3**

#### **(Re)loading media and toner**

Inserting a new print media roll 36

Automatic roll switching: 36

Reloading rolls 37

Cutting print media to attain a straight leading edge 40

Printing using the manual feed 44

Programming media settings 45

Refilling toner 48

---

### **Chapter 4**

#### **Copy jobs**

Introduction 52

Making copies 53

Starting the copy process 53

Activating/de-activating the rewind function 54

Changing settings 56

Number of copies 56

Copying using roll 1 or roll 2 56

Copying using manual feed 57

Reduction/enlargement 58

Copying using synchro or standard cut 58

Copying using synchro or standard cut 60

Adjusting the leading/trailing edge 61

Modifying the exposure 64

Inverted copies/Blueprints 65

Poster mode 65

---

### **Chapter 5**

#### **Printing files**

Printing files 68

Océ applications 69

Océ drivers 69

Cut method 69

Plot Center 70

Leading/trailing edge 70

Demo plot 71

Cancel plot 72

## **Chapter 6**

### **Uploading**

Introduction 74

## **Chapter 7**

### **Customizing defaults**

Defining pen settings 78

Defining language settings 80

Automatic language sensing 80

Data format recognition 81

Manual data format selection 82

Océ languages (VDF/BGL) 83

Océ print origin 83

Océ step size 84

Océ pen priority 85

HP-GL 86

HP-GL print origin 86

HP-GL page advance 86

Merge mode 87

HP-GL/2 88

HP-GL/2 print origin 88

HP-GL/2 page advance 88

HP-GL/2 pen priority 89

Designjet compatibility 90

Merge mode 90

HP-RTL 91

CalComp 92

CalComp print origin 92

Checksum parameter 92

CalComp pen priority 93

Merge mode 94

End of Message parameter 94

Synchronization code parameter 95

Double synchronization code parameter 95

CalComp step size 96

Raster formats 97

CALS 97

NIRS 97

TIFF 97

C4 (EDMICS) 97

PostScript level 2 98

PostScript data format selection 98

Manual data format selection 98  
PostScript page layout 99  
Default PostScript page size 99

---

## Chapter 8

Advanced menu functions  
End of plot time-out 102  
Selecting the media saver 103  
    Nesting 103  
    Autoposition 105  
    Media saver time-out 106  
    Flush media saver 106  
    Media saver plot size 107  
Replot 108  
Setting the number of copies 109  
Poster mode 110  
Dump configuration 111  
Transformation 112  
    Print rotation 112  
    Print scaling 112  
    Autoscaling 113  
Display 116  
Service 117

---

## Chapter 9

Solving problems  
Problem-solving (printer) 120  
    Printer warnings 120  
    Operator-recoverable errors (printer) 121  
    Clearing paper jams 122  
    Machine recoverable errors 124  
Problem-solving (copier) 125  
    Scanner error 125  
    Operator recoverable errors: scanner 126  
    Please wait 126  
    Printer error 126  
    Clearing original jam 126  
    Cleaning the glass platen 127

---

## **Appendix A**

### **Overview and tables**

Product specifications (printer) 130

Product specifications (scanner) 131

Interfaces 132

Centronics protocol 132

Serial protocols 132

SCSI protocol 133

Ethernet protocol 133

Centronics port configuration 134

Serial port configuration 136

SCSI port configuration 137

Originals that can be used 139

Print media that can be used 140

Overview of standard zoom formats 142

Overview of standard sizes for using standard cut 143

---

## **Appendix B**

### **Safety Information**

General safety information 146

Radio interference 146

Symbols 146

Instructions for safe use 147

Safety data sheet, Océ 9400 printer 149

Safety data sheet, Océ 9400 scanner 150

EPA Energy Star® 151

---

## **Appendix C**

### **Miscellaneous**

How to read this manual 154

User survey 155

Addresses of local Océ organizations 157

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# Chapter 1

## Getting started

*This chapter contains a general description of the Océ 9400 and instructions on how to install the printer and ready it for use. Also, it describes how to get the copier ready for copying operations.*



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## The Océ 9400 printer

The Océ 9400 is a wide format printing system. The machine is equipped with an automatic 1- or 2-roll dispenser. The Océ 9400 prints on paper, transparent paper, vellum and polyester film. Its powerful digital technology offers users optimal ease of use and the reliability that you have come to expect of Océ.

The Compact Output Stacker is the newest piece of optional equipment for the Océ 9400. The compact output stacker offers users a smart, efficient new means to collect their printed or copied drawings.

The Océ 9400 is equipped with a number of advanced features, such as:

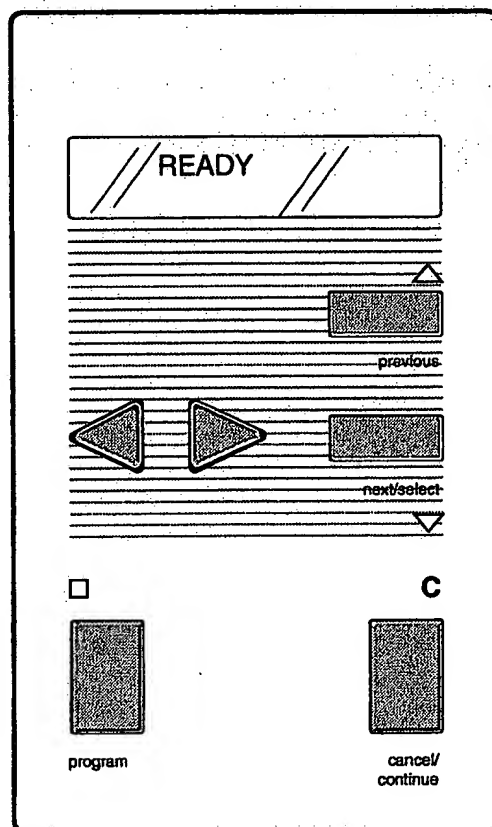
- automatic language sensing and remote control
- multiple interfaces
- fast, high quality printing
- autoscale of vector data
- media saver

Optional:

- automatic 2-roll dispenser
- memory extension modules
- compact output stacker
- PostScript level 2
- Ethernet interface
- High-capacity delivery tray

## The printer operating panel

The operating panel, which is located at the right hand side of the printer console, is easy to use (see figure 1). The panel consists of buttons and a two-line display, each line containing 16 characters.



[1] Printer operating panel




During normal operation, the printer can process print jobs, and the 2-line display indicates the current status of the printer (e.g. 'READY' or 'RASTERIZING').


The buttons on the operating panel enable you to enter Program mode and easily configure the printer to fit your requirements.




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## Buttons

**Program**  To activate program mode and to enter the top level menu. In this mode, the user can use the ,  and ◀ or ▶ buttons to step through the menu.


Just press  again to exit program mode and return to status mode. The machine also returns to status mode if there is no action for 1 minute in Program mode.

**Note:** *Pressing the Program button while the printer is printing will cause the LED above the program button to flash. Once the printing process has been completed, the printer will automatically go into program mode. The printer will not print while in program mode.*

**Next/select**  To select an option or a setting in the menu. This button also allows you, where applicable, to go to a sub-menu.

**Previous**  Pressing this button takes you one level higher in the menu.

**Browse buttons** ◀ or ▶ These two buttons are used to select another mode at the same level of the menu, or to display the next or previous option from the option list.

**Cancel/continue**  This button is used to cancel the present print job or to continue after an operator-recoverable error.

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## Display

The two-line LCD display provides status information on print jobs when in normal mode, and displays menu items in Program mode.

The following messages may appear during normal operation:

**Status messages** indicate the current status of the printer, e.g. READY, PROCESSING etc.

**Warning messages** The printer will continue to operate while displaying warning messages, but the print quality may be less than optimal, e.g. REFILL TONER.

**Error messages** The printer will stop and the user has to take action, e.g. PAPER JAM.

**Action messages** An action message prompts the user to perform an action before the print job is resumed, e.g. 'FEED SHEET' in case of print jobs with manual feed.

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## The Océ 9400 copier

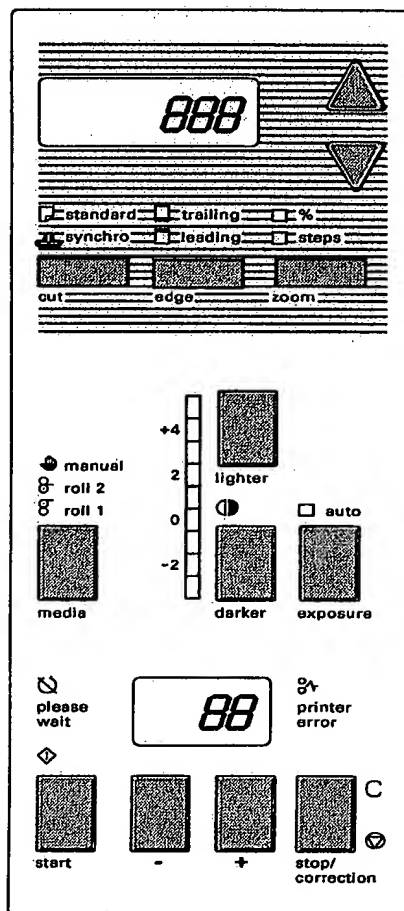
The Océ 9400 can also copy large documents (e.g. architectural or engineering drawings). The machine is easy to use and makes copies on paper, transparent paper, vellum and polyester film with the quality and reliability that you have come to expect of Océ.

To use the Océ 9400 as a copier, a wide-format scanner is connected to the printer. Note that you can still send print jobs while the Océ 9400 is being used as a copier. The print jobs are processed after copying is finished.

The machine detects whether a user wants to print a document or to make a copy, and automatically switches to printing mode after 1 minute.

## The scanner operating panel

The operating panel, which is located at the right hand side of the scanner, is easy to use (see figure 2).



[2] Scanner operating panel

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## Stand-by mode

The operating panel on the Océ 9400, (see illustration on inside back cover), is easy to use and is specially designed to carry out copy jobs.

After switching on the scanner, (see page 18), the machine is always ready for operation. In this state, the operating panel is in stand-by mode, which is in fact a low-power mode. The operating panel is activated in the following situations:

- when you feed in an original
- when you press a button on the operating panel

**Note:** *If you do not use the operating panel for more than 1 minute and no original is fed in, the machine automatically returns to stand-by mode. The Océ 9400, however, always remains ready for operation. However, if the original remains in the scanner feed table, the operating panel returns to stand-by mode after 2.5 minutes but the settings will remain.*

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## Buttons and functions

**Start button** The copy process starts with the current settings. After you have pressed the start button, no more changes are possible to the copies that are already being processed, except by making use of the 'stop/correction' button.

**-/+ button** Press these buttons to increase or decrease the number of copies. The copy quantity can be changed at all times, and is adjustable from 1 to 19 copies.

**Stop/Correction button** This button has two functions: stopping the original during the transport of the original, or for correcting the selected settings.

- Before starting the copying process:

*Pressing this button once:* The number of copies selected is erased and the default value '1' will be displayed. All other settings remain unchanged.

*Pressing this button twice:* All selected settings will also be erased and reset to the default settings. The number of copies selected will revert to '1', if it is not already set to this value. If required, you can select new settings.

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## Chapter 2

# Installing the printer

*This chapter describes how to connect your printer to your host environment and how to configure the printer to meet your specific needs.*



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## Connecting the printer to your host environment

The Océ 9400 supports several types of interfaces (Serial, Centronics, TCP/IP, Novell Netware, NETBIOS, Ethertalk).

To ensure proper operation, please follow the steps below when connecting the Océ 9400 to your host.

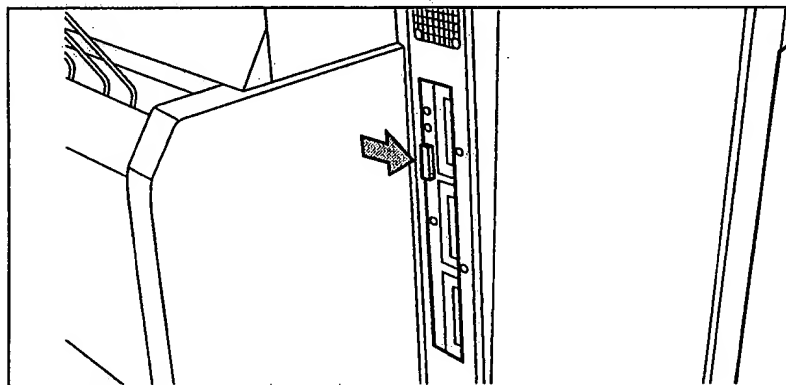
- 1 Make sure that both the host and the Océ 9400 have been switched OFF (see 'Centronics' on page 23).
- 2 Connect the appropriate interface cable to your local host and the corresponding interface connector to the Océ 9400 (see 'Centronics' on page 23), or (see 'Serial' on page 24).
- 3 Switch on the Océ 9400 (see 'Centronics' on page 23).
- 4 Go into Program mode to configure the connection parameters (see 'Centronics' on page 23) or (see 'Serial' on page 24).
- 5 Go into Program mode to configure the Océ 9400 to fit your needs (see 'Copy jobs' on page 51), or (see 'Printing files' on page 67).
- 6 Leave Program mode: the printer is now ready for use. If applicable, install and configure the appropriate host software on your local host environment.

## Centronics

Connection through the Centronics interface, which offers rapid data transfer, is straightforward: only one parameter has to be set - the transmission speed. You can select 'normal' or 'fast'. The default is 'normal'.

### ▼ Connecting Centronics

- 1 Switch off the printer and host.
- 2 Connect one end of the Centronics cable to the computer's Centronics parallel port.
- 3 Connect the other end to the printer's Centronics parallel port (see figure 5).



[5] Centronics port

- 4 Switch on the printer.

### ▼ Defining transmission speed

- 1 Press **Program** to go to the main menu.
- 2 Select the CONFIGURATION menu, using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the CONNECTIONS menu using the ◀ or ▶ button.
- 5 Press **next/select** to go to the CONNECTION menu.
- 6 Select the CENTRONICS item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the CENTRONICS menu.
- 8 Select the required speed using the ◀ or ▶ button.
- 9 Press **next/select** to confirm the selected speed.
- 10 Press **Program** to leave the main menu.



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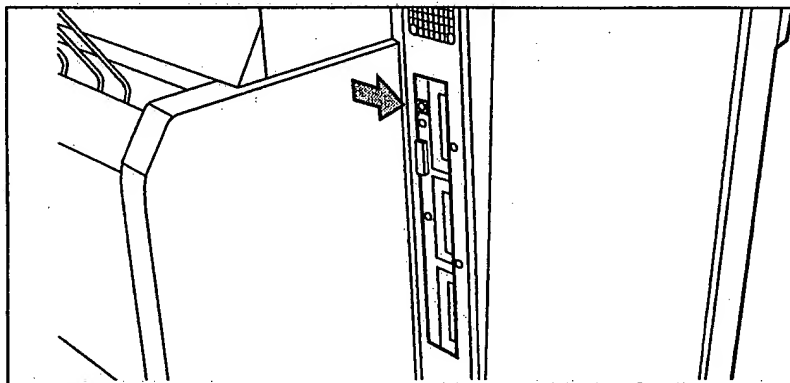
## Serial

If you are using the serial port, you will need to configure a list of parameters. These parameters are described in the following procedures.



### Connecting serial

- 1 Switch off the printer and host
- 2 Connect one end of the serial cable to the computer's serial port.
- 3 Connect the other end to the printer's serial port (see figure 6).



[6] Serial port

- 4 Switch the printer on.

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## Handshake protocol

You can select from the following handshake protocol options: CTS2 or XON4 or BOTH. The default setting is *BOTH*. This means that the printer will automatically respond to either XON/XOFF (software protocol) or CTS (hardware protocol).

#### ▼ Defining handshake protocol

- 1 Press **Program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the CONNECTIONS item using the ◀ or ▶ button.
- 5 Press **next/select** to go to the CONNECTIONS menu.
- 6 Select the SERIAL item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the SERIAL menu.
- 8 Select the PROTOCOL item using the ◀ or ▶ button.
- 9 Press **next/select** to go to the PROTOCOL menu.
- 10 Select the XON\_XOFF item using the ◀ or ▶ button.
- 11 Press **next/select** to go to the XON\_XOFF menu.
- 12 Select the appropriate setup using the ◀ or ▶ button.
- 13 Press **next/select** to confirm the selected setup.
- 14 Press **Program** to leave the main menu.

## Baud rate

The printer supports the following baud rates: 300, 600, 1200, 2400, 4800, 9600, 19200 and 38400. The default is 9600.

#### ▼ Defining the baud rate

- 1 Press **Program** to go to the main menu.
  - 2 Select the CONFIGURATION item using the ◀ or ▶ button.
  - 3 Press **next/select** to go to the CONFIGURATION menu.
  - 4 Select the CONNECTIONS item using the ◀ or ▶ button.
  - 5 Press **next/select** to go to the CONNECTIONS menu.
  - 6 Select the SERIAL item using the ◀ or ▶ button.
  - 7 Press **next/select** to go to the SERIAL menu.
  - 8 Select the TRANSMISSION item using the ◀ or ▶ button.
  - 9 Press **next/select** to go to the TRANSMISSION menu.
  - 10 Select the BAUD RATE item using the ◀ or ▶ button.
  - 11 Press **next/select** to go to the BAUD RATE menu.
  - 12 Select the required baud rate using the ◀ or ▶ button.
  - 13 Press **next/select** to confirm the selected baud rate.
- Note:** Choose the fastest baud rate supported by your system.
- 14 Press **Program** to leave the main menu.

## Bits combination

Data can be transmitted via the serial interface at a rate of 7 or 8 bits per byte. The default is 8.

### ▼ Defining the bits combination

- 1 Press **MAIN** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **CONFIG** to go to the CONFIGURATION menu.
- 4 Select the CONNECTIONS item using the ◀ or ▶ button.
- 5 Press **CONNECTIONS** to go to the CONNECTIONS menu.
- 6 Select the SERIAL item using the ◀ or ▶ button.
- 7 Press **SERIAL** to go to the SERIAL menu.
- 8 Select the TRANSMISSION item using the ◀ or ▶ button.
- 9 Press **TRANSMISSION** to go to the TRANSMISSION menu.
- 10 Select the BAUD RATE item using the ◀ or ▶ button.
- 11 Press **BAUD RATE** to go to the BAUD RATE menu.
- 12 Select the number of bits per byte using the ◀ or ▶ button.
- 13 Press **NEXT/SELECT** to confirm the selected number of bits.
- 14 Press **STOP/MAIN** to leave the main menu.

## Serial parity and stop bits

In order to be able to transfer data correctly, the parity and stop bits (framing) settings used by the printer must be configured. You can select from the following combinations:

- |                |                          |
|----------------|--------------------------|
| ■ None, 1 stop | No parity, 1 stop bit    |
| ■ None, 2 stop | No parity, 2 stop bits   |
| ■ Even, 1 stop | Even parity, 1 stop bit  |
| ■ Even, 2 stop | Even parity, 2 stop bits |
| ■ Odd, 1 stop  | Odd parity, 1 stop bit   |
| ■ Odd, 2 stop  | Odd parity, 2 stop bits  |

The default is NONE, 1 STOP

#### ▼ Setting the parity and stop bits

- 1 Press **Program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **Next/Select** to go to the CONFIGURATION menu.
- 4 Select the CONNECTIONS item using the ◀ or ▶ button.
- 5 Press **Next/Select** to go to the CONNECTIONS menu.
- 6 Select the SERIAL item using the ◀ or ▶ button.
- 7 Press **Next/Select** to go to the SERIAL menu.
- 8 Select the TRANSMISSION item using the ◀ or ▶ button.
- 9 Press **Next/Select** to go to the TRANSMISSION menu.
- 10 Select the FRAMING item using the ◀ or ▶ button.
- 11 Press **Next/Select** to go to the FRAMING menu.
- 12 Select the appropriate parity and number of stop bits using the ◀ or ▶ button.
- 13 Press **Next/Select** to confirm the selected parity and number of stop bits.
- 14 Press **Program** to leave the main menu.

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## Port type

In order to provide maximum connection flexibility, the printer's serial port can be set to either DTE (data terminal equipment) or DCE (data communications equipment). The default is DTE.

#### ▼ Selecting the port type

- 1 Press **Program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **Next/Select** to go to the CONFIGURATION menu.
- 4 Select the CONNECTIONS item using the ◀ or ▶ button.
- 5 Press **Next/Select** to go to the CONNECTIONS menu.
- 6 Select the SERIAL item using the ◀ or ▶ button.
- 7 Press **Next/Select** to go to the SERIAL menu.
- 8 Select the PROTOCOL item using the ◀ or ▶ button.
- 9 Press **Next/Select** to go to the PROTOCOL menu.
- 10 Select the PORT item using the ◀ or ▶ button.
- 11 Press **Next/Select** to go to the PORT menu.
- 12 Select the appropriate port using the ◀ or ▶ button.
- 13 Press **Next/Select** to confirm the selected port.
- 14 Press **Program** to leave the main menu.

**Note:** The printer's serial interface conforms to the RS-232-C and RS-423-C standards. If your computer uses the RS-423-C serial interface, the port type must be set to DTE.

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## Turnaround delay

The printer offers turnaround delays ranging from 0 to 10 seconds, in increments of 0.01 second. The default is 1.0.

### ▼ Setting the turnaround delay

- 1 Press **Program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the CONNECTIONS item using the ◀ or ▶ button.
- 5 Press **next/select** to enter the CONNECTIONS menu.
- 6 Select the SERIAL item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the SERIAL menu.
- 8 Select the PROTOCOL item using the ◀ or ▶ button.
- 9 Press **next/select** to go to the PROTOCOL menu.
- 10 Select the DELAY item using the ◀ or ▶ button.
- 11 Press **next/select** to go to the DELAY menu.
- 12 Select the TURNAROUND item using the ◀ or ▶ button.
- 13 Press **next/select** to go to the TURNAROUND menu.
- 14 Select the required delay using the ◀ or ▶ button.
- 15 Press **next/select** to confirm the selected delay.
- 16 Press **Program** to leave the main menu.

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## Inter-character delay

The printer offers inter-character delays ranging from 0 to 10 seconds, in increments of 0.01 second. The default is 1.0.

### ▼ Setting the inter-character delay

- 1 Press **Program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the CONNECTIONS item using the ◀ or ▶ button.
- 5 Press **next/select** to go to the CONNECTIONS menu.
- 6 Select the SERIAL item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the SERIAL menu.
- 8 Select the PROTOCOL item using the ◀ or ▶ button.
- 9 Press **next/select** to go to the PROTOCOL menu.
- 10 Select the DELAY item using the ◀ or ▶ button.
- 11 Press **next/select** to go to the DELAY menu.

- 12 Select the INTER CHAR item using the ◀ or ▶ button.
- 13 Press **next/select** to go to the INTER CHAR menu.
- 14 Select the required delay using the ◀ or ▶ button.
- 15 Press **next/select** to confirm the selected delay.
- 16 Press **program** to leave the main menu.

## SCSI

If you are using the SCSI port, (for the scan to file option), you need to configure one parameter: the SCSI ID. You can select a number between 0 and 7. The default is 0. Check your computer configuration to find an ID which is not used by another device on the SCSI-bus to which you want to connect the Océ 9400..

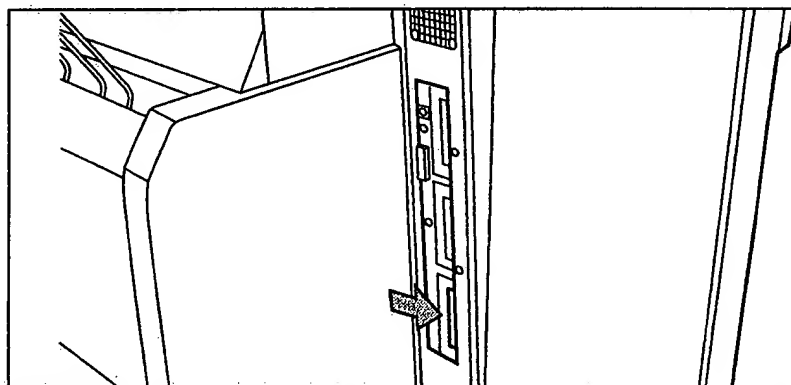
**Note:** *The SCSI port is used only for the scan to file option to upload data from the controller to the connected PC.*

Also, there is a switch on the Océ 9400 SCSI board near to the SCSI-connector which should be configured. This switch configures the termination on the SCSI-bus and should be set to "on" when the Océ 9400 is the last device on the SCSI-bus chain. It should be set to "off" when it is placed 'between' other devices on the SCSI-bus.



### Connecting SCSI

- 1 Switch the printer and the host off.
- 2 Connect one end of the SCSI cable to the computer's SCSI port.
- 3 Connect the other end to the printer's SCSI port (see figure 7).



[7] SCSI port

- 4 Switch the printer and the host on.

#### ▼ Defining the SCSI ID

- 1 Press **ESC** to go to the main menu.
- 2 Select the CONFIGURATION menu using the ◀ or ▶ button.
- 3 Press **ENTER** to go to the CONFIGURATION menu.
- 4 Select the CONNECTIONS menu using the ◀ or ▶ button.
- 5 Press **ENTER** to go to the CONNECTION menu.
- 6 Select the EXT X SCSI item, using the ◀ or ▶ button. EXT X means that the SCSI board is inserted in slot X of the Océ 9400 controller (X can be 1, 2 or 3).
- 7 Press **ENTER** to go to the EXT X SCSI menu.
- 8 Select the required ID, (ranging from 0 to 7), using the ◀ or ▶ button.
- 9 Press **ENTER** to confirm the selected ID.
- 10 Press **ESC** to leave the main menu.
- 11 Switch the printer off and then on again, to activate the configured SCSI-ID.



## Configuring the printer's memory

The printer's memory partitions can be configured to meet your specific needs, allowing you to process more complex print jobs or to create longer plot jobs.

### Input buffer

This option enables you to set the print spool input buffer size to either small or large. A small buffer leaves more memory free for processing larger numbers of vectors. A large buffer allows faster data transfer from your computer. The default is 'small'.

Files in the input buffer are processed and printed in the same order as they arrive.



#### Setting the input buffer size

- 1 Press **main/menu** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **enter/select** to go to the CONFIGURATION menu.
- 4 Select the BUFFERS item using the ◀ or ▶ button.
- 5 Press **enter/select** to go to the BUFFERS menu.
- 6 Select the INPUT BUFFER item using the ◀ or ▶ button.
- 7 Press **next/ok** to go to the INPUT BUFFER menu.
- 8 Select the required input buffer size using the ◀ or ▶ button.
- 9 Press **next/ok** to confirm the selected size.
- 10 Press **main/menu** to leave the main menu.



#### Activating the new input buffer size

- 1 Switch the printer off and then on again.

**Note:** The new memory allocation will not be activated until you restart the printer. Any print data in the printer's memory, (files in the queue), will be lost when you switch the printer off.

## Bitmap buffer

This buffer defines the percentage of total RAM memory that can be used as a bitmap partition. The value at which the bitmap buffer is set depends on the RAM configuration.

The installed RAM can be divided into:

- a bitmap partition
- a processing area for vector files

The size of the bitmap partition determines the max. dimensions of the image to be printed (e.g. 18 Mb = A0).

The size of the vector processing area determines the ability of the printer to process complex files (e.g. larger number of vectors).

A high percentage of bitmap partition allocation allows printing of long plots without windowing.

A low percentage of bitmap partition allocation provides enhanced processing capabilities for very complex files (vector and raster).

### Setting the bitmap buffer

- 1 Press **Program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **Max/select** to go to the CONFIGURATION menu.
- 4 Select the BUFFERS item using the ◀ or ▶ button.
- 5 Press **Max/select** to go to the BUFFER menu.
- 6 Select the BITMAP BUFFER item using the ◀ or ▶ button.
- 7 Press **Max/select** to go to the BITMAP BUFFER menu
- 8 Select the required bitmap partition using the ◀ or ▶ button
- 9 Press **Max/select** to confirm the required partition.
- 10 Press **Program** to leave the main menu.



#### Activating the new bitmap buffer size

- 1 Switch the printer off and then on again.

**Note:** *The new memory allocation is not activated until you restart the printer. Any print data in the printer's memory, (files in the queue), will be lost when you switch the printer off.*

RAM	Min	Max
32	58 %	82 %
48	39 %	88 %
64	29 %	90 %

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## Chapter 3

# (Re)loading media and toner

*This chapter describes how to insert new media, how to add toner and how to program media settings.*



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## Inserting a new print media roll

Before using the copier for the first time, you must choose the order in which the paper formats are shown on the scanner operating panel. You can do this by selecting ISO, ANSI or ARCHITECT paper format on the printer operating panel.

### ▼ Setting the media format

- 1 Press **Program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **Next/Select** to go to the CONFIGURATION menu.
- 4 Select PLOT MANAGER using the ◀ or ▶ button.
- 5 Press **Next/Select** to go to the PLOT MANAGER menu.
- 6 Select MEDIA FORMAT using the ◀ or ▶ button.
- 7 Press **Next/Select** to go to the MEDIA FORMAT menu.
- 8 Select the required format using the ◀ or ▶ button.
- 9 Press **Next/Select** to confirm the selected format.
- 10 Press **Program** to leave the main menu.

If the message 'ROLL EMPTY' appears in the display, a new roll of print media needs to be inserted into the printer. Depending on your configuration you may need to reload roll 1, roll 2 or both.

**Note:** After reloading, the plot is re-printed automatically

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### Automatic roll switching:

If a roll becomes empty, the printer reports a "roll empty" error and the printing stops. The printer clears the paper path and generates a message to indicate that the printer is ready to accept a new print command. If the correct material type and material format is on the other roll, the printer will use the other roll and will resume printing automatically.

If there is no match of material type and material format, you must refill the empty roll.

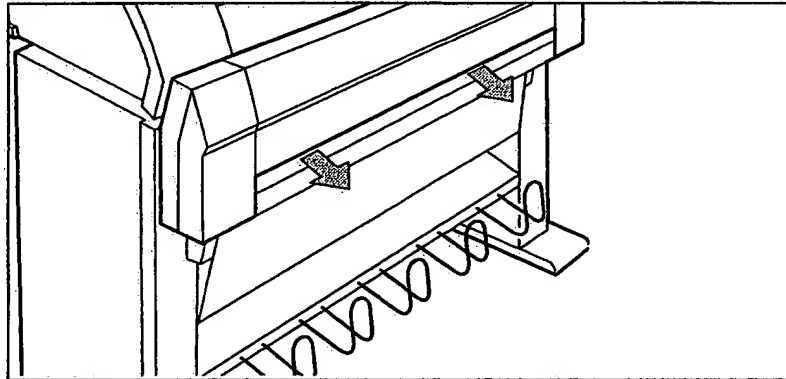
#### ▼ Programming automatic roll switching

- 1 Press **program** to enter the main menu.
- 2 Select the MEDIA SETTINGS item using the ◀ or ▶ button.
- 3 Press **next/select** to enter the MEDIA SETTINGS menu.
- 4 Select MEDIA MODE using the ◀ or ▶ button.
- 5 Press **next/select** to enter the MEDIA MODE menu.
- 6 Select AUTO ROLL using the ◀ or ▶ button.
- 7 Press **next/select** to enter the AUTO ROLL menu.
- 8 Select on or off using the ◀ or ▶ button.
- 9 Press **next/select** to confirm the selected mode.
- 10 Press **program** to leave the main menu.\*

## Reloading rolls

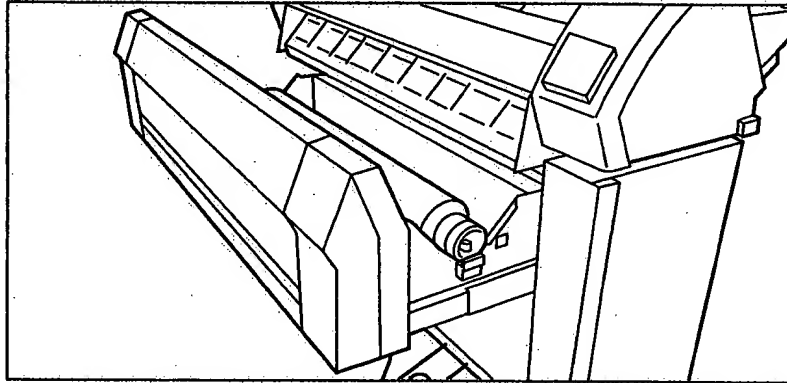
#### ▼ Reloading roll 1

- 1 Open the upper drawer completely (see figure 8).



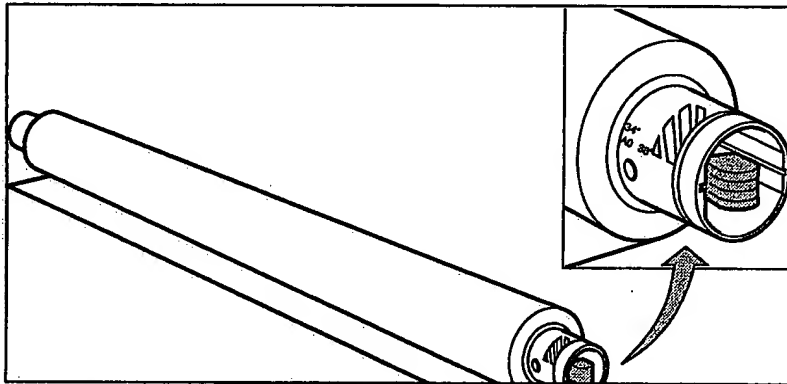
[8] Opening the drawer. Remove the roll holder from the drawer (see figure 9).

- 2 Remove the roll holder from the drawer (see figure 9).
- 3 Remove all scraps of media from the paper-feed mechanism!



[9] Removing the roll holder from the drawer

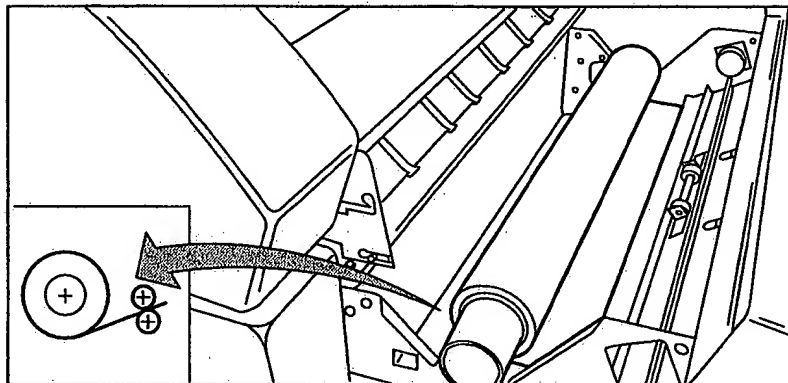
- 4 Keeping the knob pressed in, remove the empty core of the old roll from the roll holder (see figure 10).
- 5 Keeping the knob pressed in, slide the roll holder into the new roll of print media (see figure 10).  
Make sure the knob is at the right-hand side and that the paper is positioned as shown in figure 10.



[10] Pressing the knob in

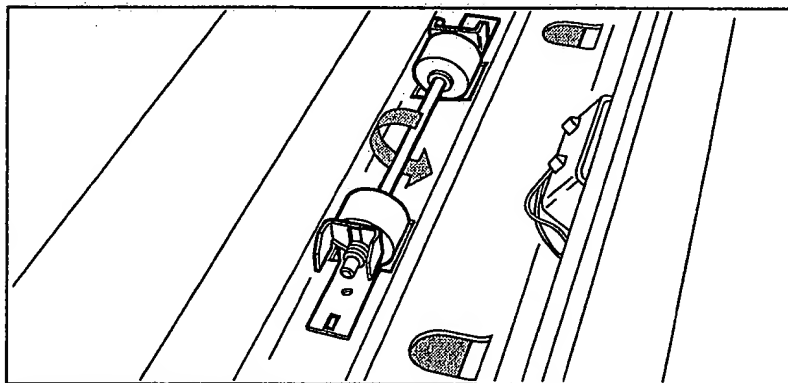
- 6 Keeping the knob pressed in, align the roll with the appropriate line on the roll holder. This line must be completely visible.

- 7** Place the roll holder with the media into the drawer (see figure 11).



[11] Repositioning the roll

- 8** Feed the media, between the input guide plates, against the rollers.  
**9** Turn the rollers until the media becomes visible (see figure 12). Also refer to the sticker inside the drawer.



[12] Feeding in the new print media

- 10** If you have inserted a roll with another print media or of a different width, you will also have to program the correct width and media type (see 'Programming media settings' on page 45).  
If you want to cut the paper to get a straight leading edge, see 'Cutting print media to attain a straight leading edge' on page 40.  
Otherwise continue with the next step.
- 11** Close the upper drawer.  
**12** Press the 'Cancel/Continue' button.



## Cutting print media to attain a straight leading edge

Media without a straight leading edge can be trimmed at a right angle to the media roll as follows:

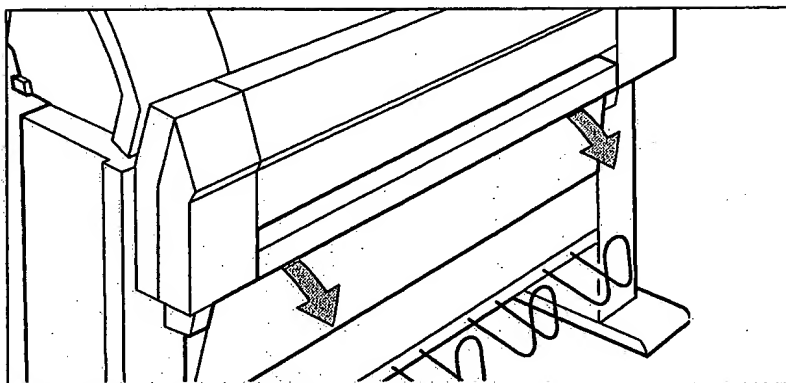


### Cutting print media from roll 1 or roll 2

- 1 Open the print media compartment.
- 2 Manually feed the print media until it is approximately 1/4 inch above the top compartment.
- 3 Close the print media compartment.
- 4 Press **Program** to go to the main menu.
- 5 Select the MEDIA SETTINGS item using the ◀ or ▶ button.
- 6 Press **Next/Select** to go to the MEDIA SETTINGS menu.
- 7 Select CUT MEDIA using the ◀ or ▶ button.
- 8 Press **Next/Select** to cut the media.
- 9 Open the print media compartment.
- 10 Remove the media cutting.
- 11 Pull the media until it is visible and positioned correctly (see figure 12 on page 39).
- 12 Close the print media compartment.
- 13 Press the 'Cancel/Continue' button.

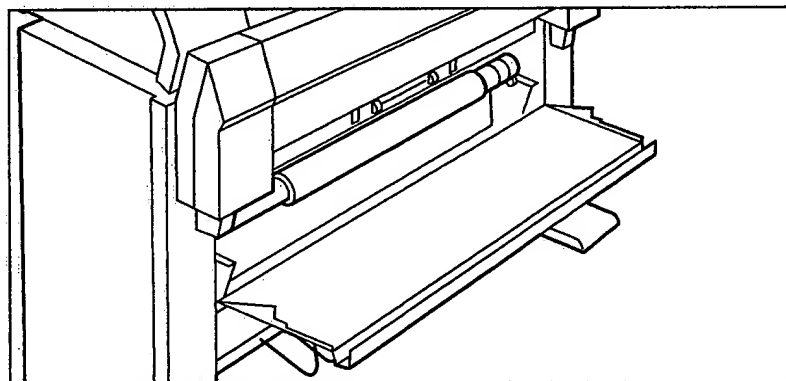
▼ **Reloading roll 2**

- 1 Open the cover to gain access to roll 2 (see figure 13).



[13] Opening the lower compartment

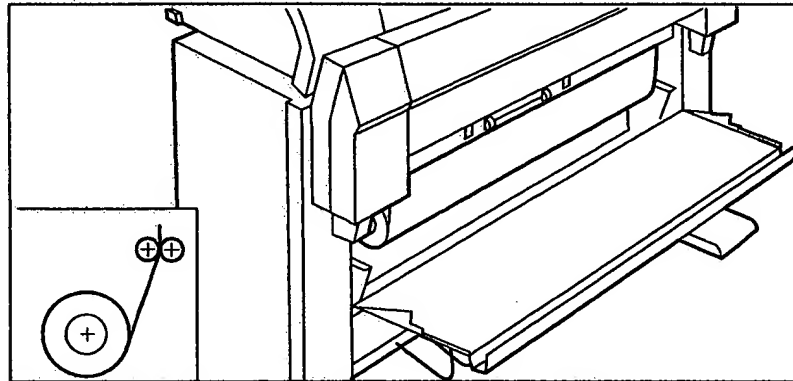
- 2 Remove the roll holder (see figure 14).
- 3 Remove all media cuttings from the feed mechanism!



[14] Removing the roll holder from the lower compartment

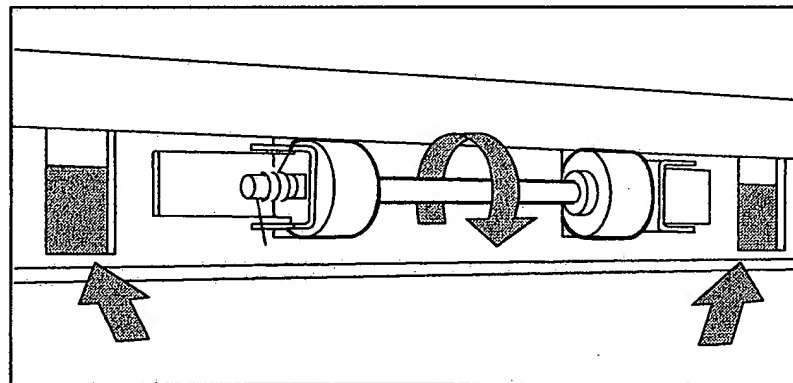
- 4 Keeping the knob pressed in, remove the empty core of the old print media from the roll holder (see figure 10 on page 38).

- 5 Slide the roll holder into the roll of print media while pressing the knob (see figure 10 on page 38).  
Make sure that the knob is positioned at the right-hand side, and that the print media is placed as shown in figure 10.
- 6 Keeping the knob pressed in, align the roll with the appropriate lines on the roll holder.
- 7 Place the roll holder with the print media in the lower compartment (see figure 15).




[15] Repositioning the roll

- 8 Feed the media between the input guide plates against the rollers. Turn the rollers until the media is visible (see figure 16) or refer to the sticker on the inside of the compartment).



[16] Feeding print media

- 
- 9 If you have inserted a roll with a different type of print media or with a different width, you will need to program the correct width and media type (refer to 'Programming media settings' on page 45).  
For information on attaining a straight leading edge, refer to 'Cutting print media to attain a straight leading edge' on page 40.
  - 10 Close the lower compartment.
  - 11 Press the 'Cancel/Continue' button.

## Printing using the manual feed

Manual feed can be selected in two ways:

- via remote-control commands contained in, or sent with, the file to be printed (e.g. Plot Director, drivers. (see 'Uploading' on page 73).
- by going into program mode and changing the MEDIA MODE.

If you want to use manual feed, you must:

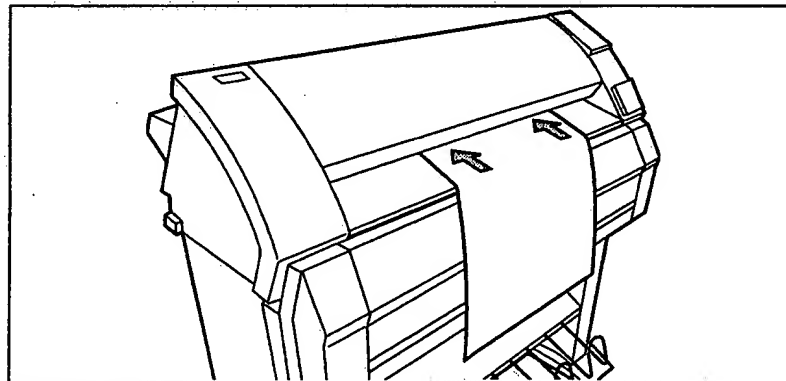
- 1 program the media settings on the printer. (see 'Programming media settings' on page 45).
- 2 send the file.
- 3 wait until the message 'FEED SHEET' appears in the printer display.
- 4 feed the sheet of paper, (in portrait orientation), into the printer.
- 5 hold the paper until the engine pulls in the first part of the sheet.

If the user has selected manual feed in a print file, the printer will ask the user, via the operating panel, to feed print media into the printer when this job is processed. There will be a user-selectable time-out, ranging between 30 and 300 seconds, during which the media can be fed into the printer. The default time-out is 60 seconds. See 'Setting the time-out for manual feed' on page 47. If the user does not feed in the media within this time, the job is cancelled and the printer processes the next job.

### ▼ Inserting print media in the manual feed

- 1 Carefully feed the print media into the feed table, keeping it centred and between the guidelines (see figure 17).

**Note:** *The print media must be at least 420 mm. in length.*



[17] Manual feed

## Programming media settings

If you have inserted a new roll with another print media or of a different width, you will also have to program the new roll specifications. These specifications are:

- width of the material.

You can select A0 (841 mm), A1 (594 mm), A2 (420 mm), A3 (297mm), E (34"), D (22"), C (17"), B (11"), E+ (36"), D+ (24"), C+ (18"), B+ (12"), 30", 500 mm, 700 mm and B1 (707 mm). Default is 36".

- media type (see 'Overview of print media' on page 141).

- Auto roll switch:

If you activate this function, the machine automatically switches to the other roll if the used one becomes empty. The switch only occurs if the kind of medium and the width of the material is the same for both rolls.

Materials	Weight	Media type setting
<i>Plain paper</i>	75 g/m <sup>2</sup>	paper
<i>Plain paper</i>	110 g/m <sup>2</sup>	paper
<i>ECO papers</i>	20 lb bond	paper
<i>Translucent paper</i>	13 lb bond	translucent
<i>Transparent paper</i>	22/23 lb bond	transp <= 95 gr
	24/26 lb bond	transp <= 95 gr
	30/31 lb bond	transp 110 gr
<i>Polyester film</i>	3.5 mil	film <= 4 mil
<i>PPC film</i>	3.5 mil	film <= 4 mil
<i>PPC Type C Polyester film</i>	3.5 mil	film <= 4 mil
<i>Clear polyester film</i>	4 mil	film <= 4 mil
<i>Contrast film</i>	3.5 mil	film <= 4 mil
<i>Polyester film **</i>	4.5 mil	film 4.5 mil
<i>Vellum</i>	20 lb bond	vellum
<i>Vellum</i>	16 lb bond	vellum
<i>Contrast paper</i>	135 g/m <sup>2</sup>	paper
<i>Fluor paper</i>	90 g/m <sup>2</sup>	paper
<i>Pastel paper</i>	80 g/m <sup>2</sup>	paper

\*\* The sticker on this polyester roll says '4 mil', but the thickness is really 4.5 mil.

▼ **Programming media width settings**

- 1 Press **Program** to go to the main menu.
- 2 Select the MEDIA SETTINGS item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the MEDIA SETTINGS menu.
- 4 Select ROLL 1, ROLL 2, MANUAL FEED using the ◀ or ▶ button.
- 5 Press **next/select** to go to the ROLL or MANUAL FEED menu.
- 6 Select the WIDTH item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the WIDTH menu.
- 8 Select the desired width using the ◀ or ▶ button.
- 9 Press **next/select** to confirm the selected width.
- 10 Press **Program** to leave the main menu.

▼ **Programming media type settings**

- 1 Press **Program** to go to the main menu.
- 2 Select the MEDIA SETTINGS item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the MEDIA SETTINGS menu.
- 4 Select ROLL 1, ROLL 2, MANUAL FEED using the ◀ or ▶ button.
- 5 Press **next/select** to go to the ROLL or MANUAL FEED menu.
- 6 Select the TYPE item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the TYPE menu.
- 8 Select MEDIA TYPE using the ◀ or ▶ button.
- 9 Press **next/select** to go to the TYPE menu.
- 10 Select the desired media type using the ◀ or ▶ button.
- 11 Press **next/select** to confirm the selected media type.
- 12 Press **Program** to leave the main menu.

▼ **Programing default paper feed**

The default is roll 1.

- 1 Press **Program** to go to the main menu.
- 2 Select the MEDIA SETTINGS item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the MEDIA SETTINGS menu.
- 4 Select MEDIA MODE using the ◀ or ▶ button.
- 5 Press **next/select** to go to the MEDIA MODE menu.
- 6 Select the DEF. PAPER FEED using the ◀ or ▶ button.
- 7 Press **next/select** to enter the DEF. PAPER FEED menu.
- 8 Select the default roll using the ◀ or ▶ button.
- 9 Press **next/select** to confirm the selected mode.
- 10 Press **Program** to leave the main menu.

▼ **Programing automatic roll selection**

- 1 Press **Program** to enter the main menu.
- 2 Select the MEDIA SETTINGS item using the ◀ or ▶ button.
- 3 Press **next/select** to enter the MEDIA SETTINGS menu.
- 4 Select MEDIA MODE using the ◀ or ▶ button.
- 5 Press **next/select** to enter the MEDIA MODE menu.
- 6 Select AUTO ROLL using the ◀ or ▶ button.
- 7 Press **next/select** to enter the AUTO ROLL menu.
- 8 Select on or off using the ◀ or ▶ button.
- 9 Press **next/select** to confirm the selected mode.
- 10 Press **Program** to leave the main menu.\*

▼ **Programming automatic switching**

- 1 Press **Program** to enter the main menu.
- 2 Select the MEDIA SETTINGS item using the ◀ or ▶ button.
- 3 Press **next/select** to enter the MEDIA SETTINGS menu.
- 4 Select MEDIA MODE using the ◀ or ▶ button.
- 5 Press **next/select** to enter the MEDIA MODE menu.
- 6 Select AUTO SWITCH using the ◀ or ▶ button.
- 7 Press **next/select** to enter the AUTO SWITCH menu.
- 8 Select on or off using the ◀ or ▶ button.
- 9 Press **next/select** to confirm the selected mode.
- 10 Press **Program** to leave the main menu.

▼ **Setting the time-out for manual feed**

The default is 60 seconds.

- 1 Press **Program** to go to the main menu.
- 2 Select the MEDIA SETTINGS item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the MEDIA SETTINGS menu.
- 4 Select MANUAL FEED using the ◀ or ▶ button.
- 5 Press **next/select** to go to the MANUAL FEED menu.
- 6 Select the required TIME-OUT using the ◀ or ▶ button.
- 7 Press **next/select** to go to the TIMEOUT menu.
- 8 Select the desired time-out using the ◀ or ▶ button.
- 9 Press **next/select** to confirm the selected time-out.
- 10 Press **Program** to leave the main menu.



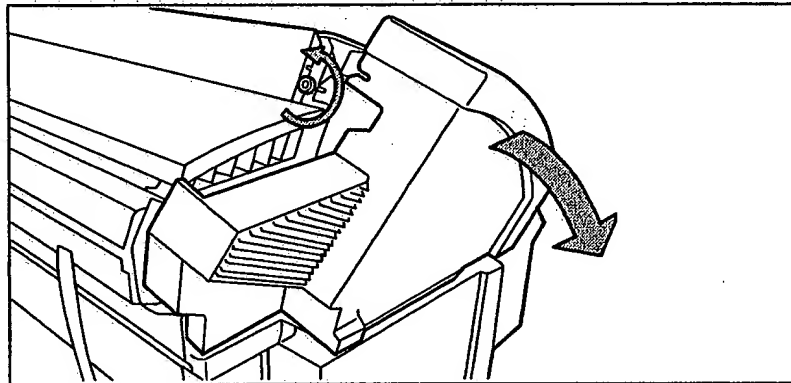
## Refilling toner

If the message 'REFILL TONER' --- > Press Continue, appears in the display, the toner must be refilled immediately.

### ▼ Refilling toner

**Attention:** Use only Océ B4 toner (the B4 toner is the same as the Océ 9400 toner).

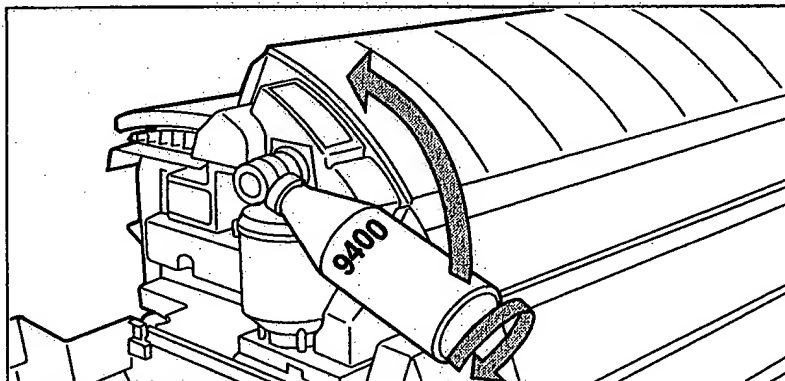
- 1 Unscrew the fastening knob at the left-hand side of the printer and open the left-hand cover (see figure 18).



[18] Unscrewing the fastening knob and opening the cover

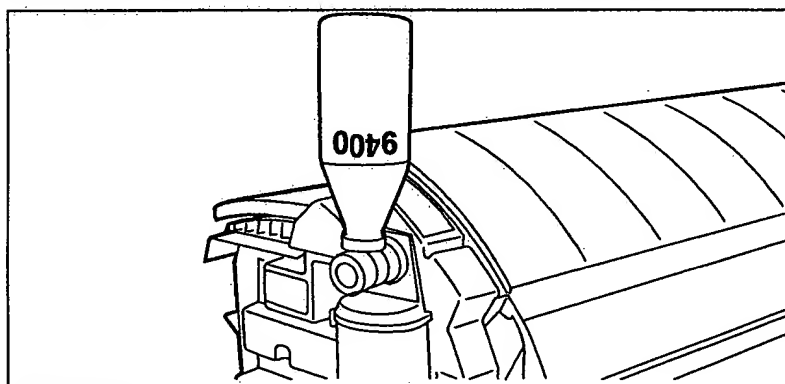
- 2 Shake the toner bottle thoroughly, then open it.

- 3** Screw the bottle in, turning it clockwise and holding it in a slanted position (see figure 19).



[19] Screwing the bottle into place

- 4** Move the toner bottle to a vertical position (see figure 19) and 20).



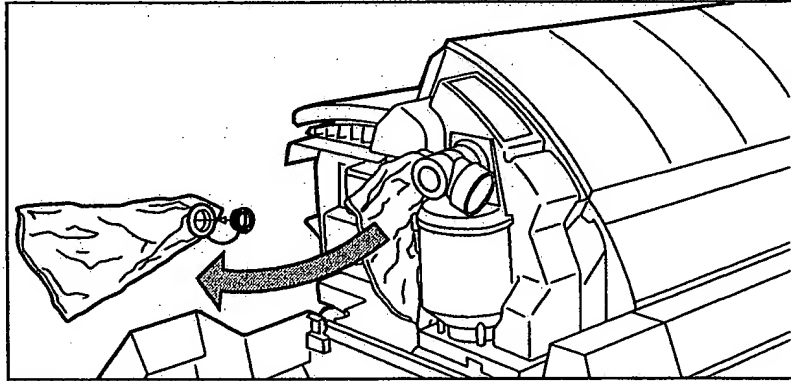
[20] Adding toner

- 5** Empty the toner out of the bottle.  
**6** When the toner bottle is completely empty, return it to its original position.  
**7** Unscrew the toner bottle, turning it counter-clockwise.



#### Replacing the waste toner bag

- 1 Pull the waste toner bag from its holder and seal the bag with the cap provided (see figure 21).



[21] Replacing the waste toner bag

- 2 Slide a new waste toner bag over the holder.
- 3 Close the cover and tighten the access nut.
- 4 Press the 'Program' button to resume printing.

---

## **Chapter 4**

### **Copy jobs**

*This chapter describes how to make copies.*



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## Introduction

With the Océ 9400, you can make copies on paper, transparent paper, vellum and polyester film, while Océ's Image Logic Technology ensures optimal copy quality.

Depending on its configuration, your system will be equipped with a 1 roll- or 2 roll-dispenser. Using the 'media' button, you can select the roll from which you want to copy, or choose to feed a sheet of paper manually.

With the Océ 9400 you can make 1:1 copies, or reduce or enlarge a copy of your original from 25% to 400%. You can set the zoom to fixed steps or to % steps. The default setting is 100%.

The Océ 9400 cuts the paper to the length of the original: this is called synchro cut. Or, if you have selected standard cut mode, the copy will be cut to a standard length, (see 'Copying using synchro or standard cut' on page 60).

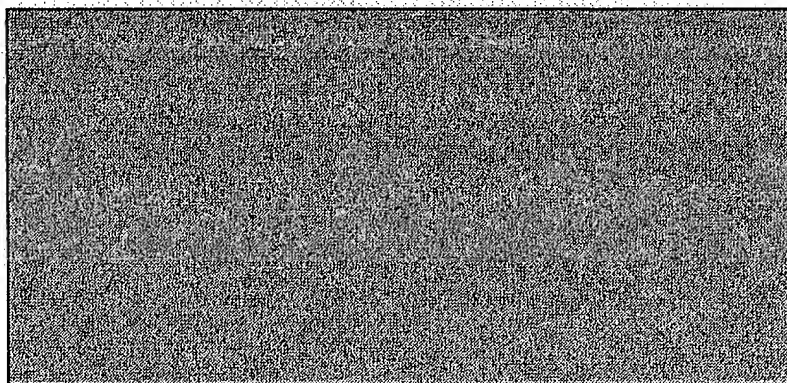
The automatic exposure setting ensures that background-free copies can be produced from most line-drawings. If you have an extremely dark or light original, or an original with pasted parts or photographs, you may have to manually adjust the exposure setting (see 'Modifying the exposure' on page 64).

## Making copies

The copying process starts after you have pressed the 'start' button. Before pressing the 'start' button, you can change the settings.

### ▼ Feeding in the original

- 1 Insert the original, face down and aligned to the right, along the original guide on the scanner feed table, so that the line is completely visible (see figure 22).



[22] Inserting the original

The original will be transported about 1 centimeter to a pre-defined position.

- 2 Now you are ready to change settings or to start the copy process (see 'Starting the copy process' on page 53).

If you make a copy within the time-out of 1 minute, the machine will use the settings of the previous copy job.

## Starting the copy process

If you press the 'start' button without changing any settings, the machine will either use the settings of the previous copy job, or its own default settings, which are:

- number of copies 1
- using roll 1
- zoom 100%
- synchro cut
- no leading/trailing edge
- auto exposure on; exposure setting 0.

The default settings are used in the following situations:

- after switching on
- after the stop/correct button has been pressed twice
- after a time-out of 1 minute (since the end of the previous copy job).

If you press the 'start' button and the printer is not busy, the original will be scanned. After the original has been scanned, it will be returned to the operator. No changes can be made to the settings during the scanning process.

When the original has been completely returned, it can be removed and you can feed in a new original and program the settings.

If the printer is busy when you press the 'start' button, the 'PLEASE WAIT' indicator lights up. Printing will resume 1 minute after the copying process has finished. The scanning will start automatically when the printer is ready again.

## Activating/de-activating the rewind function

**Note:** *The default setting is configured by the Océ service technician.*

If you have a very fragile original, it may be better not to return the original to the operator. In this case, you can use the "Start" button to activate a deviation from the default settings.

Three default settings are possible:

- 1 the original is rewound after scanning;
- 2 the original is rewound after scanning unless you tell the scanner to leave the original at the back of the scanner;
- 3 the original is not rewound unless you tell the scanner to feed the original back to the front of the scanner.

If you feed an original and the rewind function is not active, you must press the "Start" button only for the first original. The next originals will be fed automatically (stream feed). Make sure you have chosen new settings before feeding the original.

### ▼ De-activating the rewind function (In situation 3):

- 1 Insert the original face down and right aligned.
- 2 Choose the required settings.
- 3 Press the "Start" button.

- 4 During scanning, press the "Start" button again. The indicator light above the Start button will flash.
- 5 The original will be held at the back of the scanner.

▼ **Activating the rewind function (In situation 2):**

- 1 Insert the original face down and right aligned.
- 2 Choose the required settings.
- 3 Press the "Start" button.
- 4 During scanning, press the "Start" button again. The indicator light above the Start button will flash.
- 5 The original will be rewound after scanning.

The settings will return to default if:

- no original is fed;
- an error has occurred;
- the correction button is pressed;
- the panel time out has been exceeded.



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## Changing settings

In order to perform special copy jobs, the Océ 9400 offers you the possibility of changing the settings to fit your requirements. This section explains in detail how to change these particular settings.

---

### Number of copies

If you want multiple copies from one original, you will need to enter the desired number of copies on the scanner operating panel. As copying progresses, the printer's operating panel will display a "count-down" of the number of copies still to be produced. The original will be scanned once only and the required number of copies will be processed.

Refer to 'Product specifications (scanner)' on page 131 for the limitation of multiple copy jobs.



#### Selecting the number of copies

- 1 Enter the number of copies, (1 to 19), using the '+' or '-' buttons on the scanner operating panel.  
The number of copies is shown on the display.

---

### Copying using roll 1 or roll 2

You can choose between two rolls by pressing the 'media' button. When a roll has been chosen, the copy media is taken from the selected roll.

**Note:** Only use paper as specified in 'Print media that can be used' on page 140.



#### Selecting roll 1, roll 2 or manual feed

- 1 Press the 'media' button until the indicator corresponding to your choice lights up.

## Copying using manual feed

If you want to copy a job on a media type and/or size that is not available on the media rolls, it can be convenient to manually feed sheets of media instead of changing the media rolls. The sheet feed is a special slot located just above the paper roll drawers on the print engine. You can insert pre-cut copy media into this slot, one sheet at a time. See 'Printing using the manual feed' on page 44.

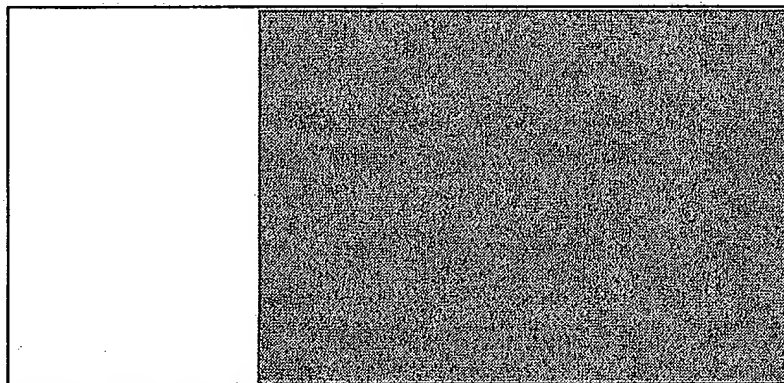
Before using manual feed, you will have to program the media settings. See 'Programming media type settings' on page 46.

### ▼ Selecting manual feed

- 1 Feed in the original, in portrait orientation.
- 2 Press the 'media' button until the manual feed indicator lights up.
- 3 Adjust other settings, if required.
- 4 Press the 'start' button.
- 5 Wait for the message 'FEED SHEET' to appear in the printer display.
- 6 Feed in the copy material, in portrait orientation (min. length 420 mm).
- 7 Hold the paper until the engine pulls in the first part of the sheet.

**Attention:** *If sheets of copy material are curled, feed them in with the curl facing down to avoid damaging the drum.*

- 8 If the copy job requires more sheets, the printer display will ask you to feed in the next sheet.
- 9 To complete the job, repeat steps 5 to 8.



[23] Manually feeding in a sheet of paper

**Attention:** *If you do not wait until the message 'FEED SHEET' appears, a paper jam may occur, or the print job may be completed using the wrong sheet of media.*

**Note:** *Manual feed time-out: (see 'Setting the time-out for manual feed' on page 47).*

## Reduction/enlargement

With the Océ 9400 you can reduce or enlarge a copy of your original from 25% to 400%. By pressing the 'zoom' button, you can toggle between the fixed-step zoom mode and the % zoom mode. There are 8 pre-set zoom settings available in fixed-step mode. The zoom factor can be selected by means of the 'up' or 'down' button when the indicator is flashing. Also refer to 'Overview of standard zoom formats' on page 142. Making reduced/enlarged copies with pre-set zoom settings

- 1 Press the 'zoom' button to activate the step zoom mode.
- 2 Press the 'up' or 'down' button to select the required reduction/enlargement ratio.

The display shows the selected ratio. If you make adjustments using this button, one of the indicators above the button will flash. If the adjustment differs from the default setting, the indicator remains on. You confirm the setting by pressing the zoom, edge, cut, media or start buttons.

### ▼ Making reduced/enlarged copies with % steps

- 1 Press the 'zoom' button to activate the % zoom mode.
- 2 Press the 'up' or 'down' button to select the required reduction/enlargement ratio.

The display shows the selected ratio. If you make adjustments using this button, one of the indicators above the button will flash. If the adjustment differs from the default setting, the indicator remains on. You confirm the setting by pressing the zoom, edge, cut, media or start buttons.

## Copying using synchro or standard cut

In synchro cut mode, the copy is cut at the length of the original, taking into account the zoom factor and the leading/trailing edge setting. Synchro cut mode is selected by default.

In standard cut mode, the copy is cut at a standard format (portrait). You select the width of the standard format with the 'up' or 'down' button.

**Example:** selecting 36 inches, means selecting a format of 36 inches width and a corresponding 48 inches length. Independently of the roll width, the material is cut at a length of 48 inches.

**Note:** Depending on the used range of ISO, ANSI or ARCH you get the paper sizes mentioned in the appropriate column (see 'Overview of standard sizes for using standard cut' on page 143).

If you make adjustments in standard mode, using the cut button, the 'standard' indicator above the button will flash. After confirming the selection of standard mode, the indicator remains on. You confirm the setting by pressing the zoom, edge, cut, media or start buttons.

When standard cut has been selected, the system always cuts at the selected length. Even if the actual length of the original is shorter or longer than the selected length, (taking into account the zoom factor and the leading/trailing edge setting), the cut will be made at the selected length.

#### ▼ Selecting synchro or standard cut

- 1 Press the 'cut' button to select the cut mode which you want. The selected cut mode's indicator will light up.  
If you select standard cut:
- 2 Press the 'up' or 'down' button to select the required cut length.  
The required length is shown in the operating display. You confirm the setting by pressing the zoom, edge, cut, media or start buttons.  
For an overview of possible standard lengths, refer to 'Overview of standard sizes for using standard cut' on page 143.

---

## Copying using synchro or standard cut

In synchro cut mode, the copy is cut to the length of the original, taking the zoom factor and the leading/trailing edge settings into account. By default, Synchro cut mode is selected.

In standard cut mode, the copy is cut to a standard format (portrait). You select the width of the standard length using the 'up' or 'down' buttons.

**Example:** selecting 36 inches results in a format 36 inches wide and 48 inches long. Independently of the roll width, the material is cut at a length of 48 inches.

**Note:** The exact size of your output depends on the range used: ISO, ANSI or ARCH (see 'Overview of standard sizes for using standard cut' on page 143).

If you make adjustments in standard mode, using the cut button, the 'standard' indicator above the button will flash. This indicator will remain on even after you have confirmed that you wish to select standard mode. You confirm the setting by pressing the zoom, edge, cut, media or start button.

If standard cut has been selected, the system cuts at the selected length, even if the actual length of the original is shorter or longer than the selected length (taking into account the zoom factor and the leading/trailing edge setting).



### Selecting synchro or standard cut

- 1 Press the 'cut' button to select the required cutting mode. The indicator for the selected cutting mode will light up.  
If you select standard cut:
- 2 Press the 'up' or 'down' button to select the required cut length.  
The required length is shown in the operating display. You confirm the setting by pressing the zoom, edge, cut, media or start button.  
For an overview of possible standard lengths, refer to 'Overview of standard sizes for using standard cut' on page 143.

## Adjusting the leading/trailing edge

By selecting a positive leading/trailing edge, it is possible to increase the copy length in order to allow for a filing strip.

If you don't want the filing strip to show on the copy, it is possible to remove it by selecting a negative leading or trailing edge. The adjustment steps are indicated on the operating panel, expressed in millimetres or inches.

### ▼ Adjusting the leading/trailing edge

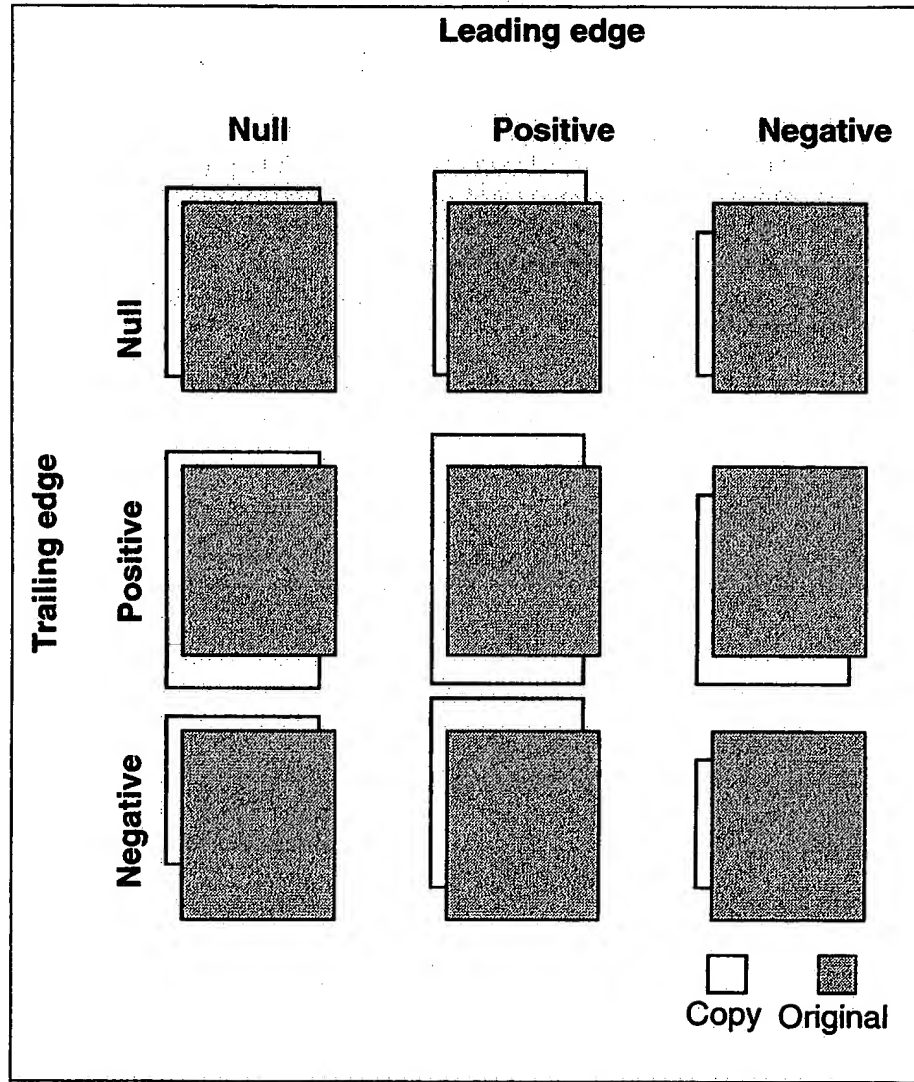
- 1 Press the 'edge' button to toggle between leading and trailing edge.
- 2 Press the 'up' or 'down' buttons to select the required leading/trailing edge value. The length of the currently selected edge is shown in the display.

If you make adjustments by using this button, the indicators above the button will flash. If the adjustment differs from the default setting, the indicator will remain on. You confirm the setting by pressing the zoom, edge, cut, media or start buttons.

**Attention:** *Be aware that decreasing the edges by too much may result in a loss of information.*

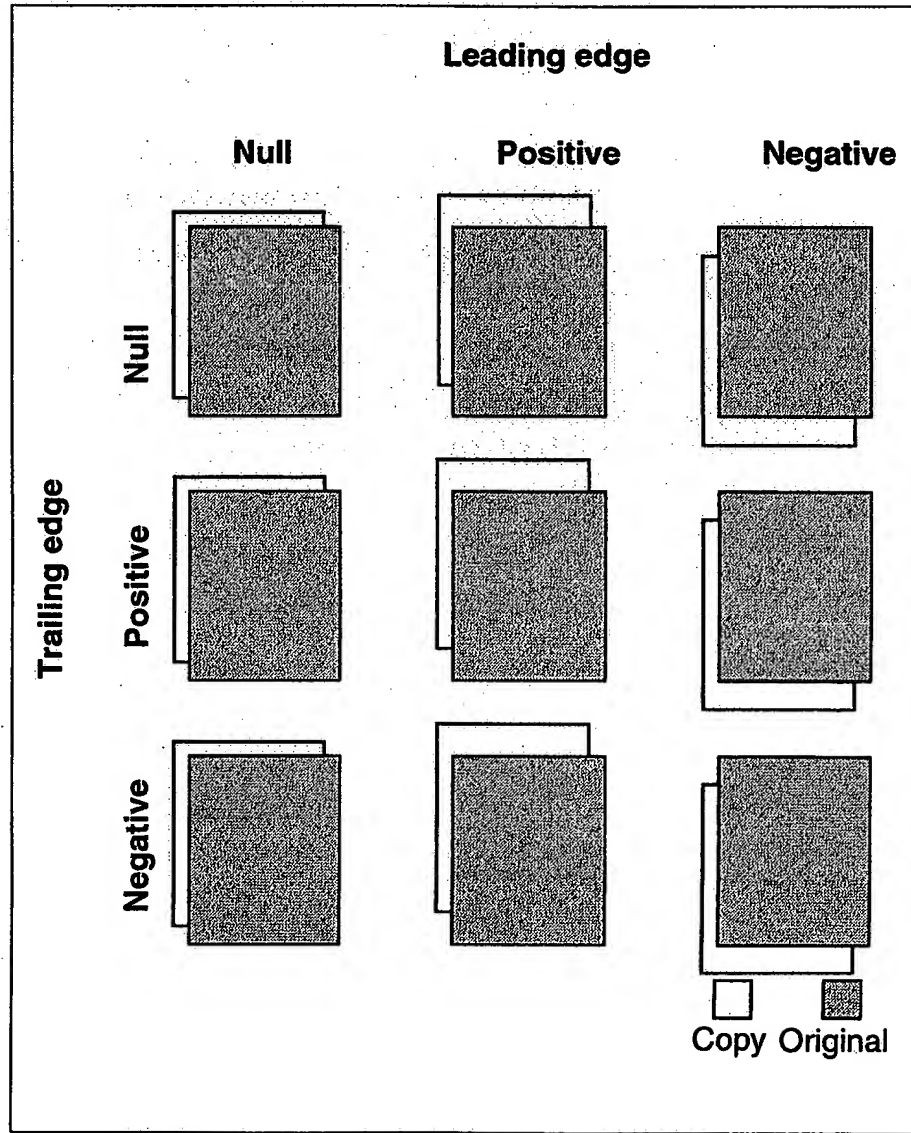
The method of adjusting the leading/trailing edge differs, depending on whether you are using roll feed or manual feed (see 'Leading/trailing edge when copying on rolls of paper' on page 62) and 'Leading/trailing edge when copying on sheet of paper' on page 63).

Leading/trailing edge when copying on rolls of paper



[24] Using rolls

Leading/trailing edge when copying on sheet of paper



[25] Using sheets



## **Modifying the exposure**

The automatic exposure setting ensures that background-free copies can be produced from most line-drawings. In this case, the automatic background compensation is activated.

The background is constantly measured during the scanning of the original. However, the results from some originals may not match your requirements.

Normally, the automatic background compensation is active and the exposure level is 0.



### **Manually adjusting the exposure**

If you still have background on the copy:

- 1 Leave your originals in the scanner.
- 2 Adjust the exposure level with the 'lighter' button.
- 3 Press the 'start' button.

If weak information is no longer visible:

- 1 Leave your originals in the scanner.
- 2 Adjust the exposure level with the 'darker' button.
- 3 Press the 'start' button.

If the result still does not match your requirements:

- 1 Leave your originals in the scanner.
- 2 De-activate the automatic exposure background compensation by pressing the 'auto exposure' button. The background will no longer be measured during the scanning of the original.
- 3 Adjust the background level of the copy, using the 'lighter' and 'darker' buttons.
- 4 Press the 'start' button.

## **Inverted copies/Blueprints**

To copy old blueprints, you can select the inverted copy mode. To prevent involuntary use of this option, this function is protected. You must first feed in the original and then press the 'correction' and the 'zoom' buttons simultaneously.

### ▼ **Making Inverted copies**

- 1 Feed in the original.
- 2 Press the 'correction' and 'zoom' buttons at the same time.  
The inverted copy mode is now active. The copy quantity is reset to 1 (cannot be changed), and it will flash. The auto exposure is automatically switched off.
- 3 Press the 'start' button.  
Remove the original after it has been returned. The inverted copy mode will no longer be active.

## **Poster mode**

When copying originals with large black areas, Poster mode ensures optimal copy quality by increasing the density of the copy.

### ▼ **Activating Poster mode**

- 1 Press the 'lighter' and 'darker' buttons simultaneously.  
The Exposure light will flash. Poster mode is now active.
- 2 If desired, the exposure level can also be modified while in Poster mode.
- 3 Feed in the original.
- 4 Press the 'Start' button.

### ▼ **De-activating the Poster mode**

- 1 Press the 'lighter' and 'darker' buttons simultaneously again.
- 2 Press the 'Stop/Correction' button.

**REST AVAILABLE COPY**

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## **Chapter 5**

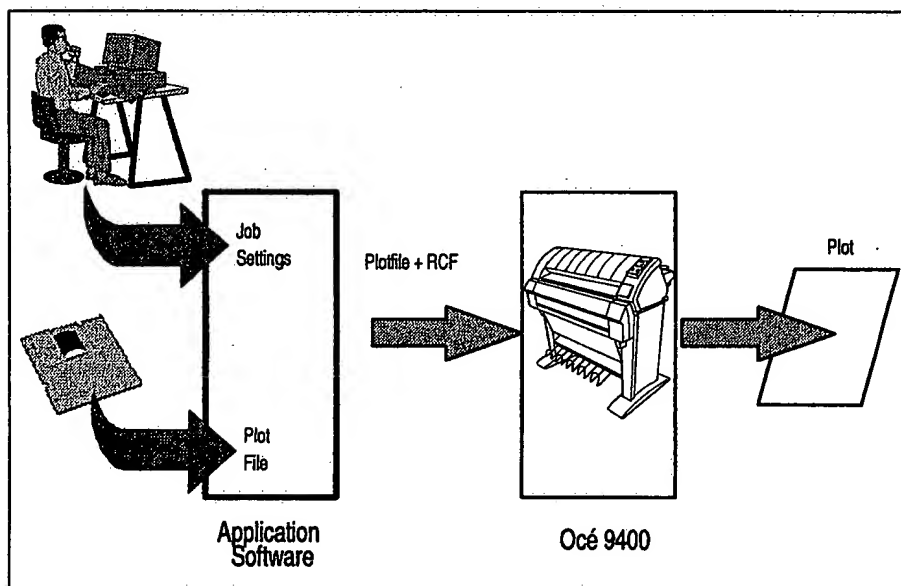
# **Printing files**

*This chapter describes how to print files.*



## Printing files

The Océ 9400 can be connected to a host environment consisting of either a stand-alone PC/Workstation or a PC/Workstation connected to a network. It accepts various standard format CAD/CAM vector and EDMS raster data files from the host environment and converts these into high quality plots (see figure 26).



[26] Data flow to the Océ 9400

When an Océ 9400 receives vector (HP-GL, HP-GL/2, VDF, BGL, Calcomp 906/907), raster (HP-RTL, TIFF, CALS) or PostScript (PostScript level 2 optional) data, it generates a plot with the settings (e.g. number of copies, plotter emulation etc.) specified on the operator console in Program Mode.

In order to maximize flexibility, each plot job can be preceded by remote-control commands specifying the settings to be used for the job in question. These commands are contained in a 'header' containing job- and file-specific settings (e.g. number of copies), in Remote Control Format (RCF), which overrule the settings programmed in Program Mode.

Headers can be generated in a variety of ways:

- The header can be generated within your application. Refer to the Océ 9400 Programmers Manual for details on RCF syntax and functions.
- An Océ Windows or Autocad ADI driver can be used to generate both a plottable file (e.g. HP-RTL, HP-GL/2), and the appropriate header with RCF commands. Refer to the Océ Windows / Autocad Driver documentation for more details.
- Plot Director, an extremely flexible, user-friendly Océ Windows application, can be used to generate jobs containing plottable files. Refer to the Océ Plot Director manual for details on this method.

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## Océ applications

The following application is available:

Plot Director (MS-Windows 3.x, NT and 95)

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## Océ drivers

The following drivers are available:

ADI driver for AutoCAD R12. (MS-DOS, MS-Windows 3.x),  
AutoCAD R13 (MS-DOS, Windows 3.x, NT and 95)  
Windows Printing Solution (Windows 3.x, NT and 95).  
PostScript driver (Windows 3.x, NT, 95 and Macintosh)

---

## Cut method

This setting can be used to select standard cut or synchro cut (see 'Overview of standard sizes for using standard cut' on page 143).

**Note:** *The values selected for leading or trailing edge are taken into account when Synchro Cut is used.*



### Programming cut method

- 1 Press **PROGRAM** to enter the main menu.
- 2 Select the MEDIA SETTING option using the ◀ or ▶ button.
- 3 Press **MEDIA SETTING** to enter the MEDIA SETTING menu.
- 4 Select the PLOT POSITION option using the ◀ or ▶ button.
- 5 Press **PLOT POSITION** to enter the PLOT POSITION menu.

- 6 Select the CUT METHOD option using the ◀ or ▶ button.
- 7 Press **next/select** to enter the CUT METHOD menu.
- 8 Select the desired cut method using the ◀ or ▶ button.
- 9 Press **next/select** to confirm the selected cut method.
- 10 Press **program** to leave the main menu.

## Plot Center

This setting can be used to enable or disable centering of the plot on the paper. If center is off, the plot will be positioned in the upper left-hand corner of the page.

If Standard Cut is selected, the plot is printed and the media is cut according to the standard cut functionality. If Plot Center in ON, the plot is shifted up/down and left/right until it is centered on the selected bounding box.

**Note:** If you print a plot longer than standard size, the machine automatically switches to synchro cut, to prevent you from losing information.

If Synchro Cut is selected, the bounding box of the plot sets the hard clip limits. If Plot Center is ON, the plot is shifted to the left or right until it is centered on the page.

### ▼ Programing Plot Center

- 1 Press **program** to enter the main menu.
- 2 Select the MEDIA SETTING option using the ◀ or ▶ button.
- 3 Press **next/select** to enter the MEDIA SETTING menu.
- 4 Select the PLOT POSITION option using the ◀ or ▶ button.
- 5 Press **next/select** to enter the PLOT POSITION menu.
- 6 Select the PLOT CENTER option using the ◀ or ▶ button.
- 7 Press **next/select** to enter the PLOT CENTER menu.
- 8 Select ON/OFF using the ◀ or ▶ button.
- 9 Press **next/select** to confirm the setting.
- 10 Press **program** to leave the main menu.

## Leading/trailing edge

The leading edge setting can be used to add a white strip at the top of the image. The pagelength will increase accordingly.

The trailing edge setting can be used to add a white strip at the end of the image. The pagelength will increase accordingly

**Note:** The leading/trailing edge option only works if the cut method is set to synchro cut.

The value for the trailing or leading edge can be set between -80 to 80 mm (in steps of 5 mm) or -3 to +3 inch (in steps of 1/4 inch).

#### ▼ Programming leading or trailing edge

- 1 Press **Program** to enter the main menu.
- 2 Select the MEDIA SETTING option using the ◀ or ▶ button.
- 3 Press **Next/select** to enter the MEDIA SETTING menu.
- 4 Select the PLOT POSITION option using the ◀ or ▶ button.
- 5 Press **Next/select** to enter the PLOT POSITION menu.
- 6 Select the TRAILING OF LEADING EDGE option using the ◀ or ▶ button.
- 7 Press **Next/select** to enter the TRAILING OF LEADING EDGE menu.
- 8 Select the required value using the ◀ or ▶ button.
- 9 Press **Next/select** to confirm the value.
- 10 Press **Program** to leave the main menu.

## Demo plot

After installing the Océ 9400, we recommend the generation of a demo plot in order to make sure that the printer works properly.

#### ▼ Making a demo plot

- 1 Press **Program** to go to the main menu.
- 2 Select the PLOT item using the ◀ or ▶ button.
- 3 Press **Next/select** to go to the PLOT menu.
- 4 Select the DEMO PLOT item using the ◀ or ▶ button.
- 5 Press **Next/select** to print the demo plot.
- 6 Press **Program** to leave the main menu.



---

## Cancel plot

Follow the procedure below if you want to cancel the demo plot before printing starts:



### Cancelling a plot

- 1 Press **Cancel/Continue**.

The printer will stop. Printing of the plot may be discontinued.  
The print media is always ejected.

---

## **Chapter 6**

# **Uploading**

*This chapter shows how to use the Océ 9400 for digitizing analog drawings.*



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## Introduction

The Océ 9400 can also be used, with the help of the the Scan to file option, to digitize analogue drawings and upload them to a host computer using a SCSI-interface.

This option consists of the following components:

- OLB SCSI-board, to be inserted into the Océ 9400 controller
- Scan Station software for the Océ 9400
- SCSI-board (option) in the PC, for connection to the Océ 9400



### Making uploads

After everything has been correctly installed on the Océ 9400 and on the PC, connect the two systems with an SCSI-cable, and the uploading can begin.

- 1 Switch on the Océ 9400 and the PC.
- 2 Start the Upload application, set all scan parameters to your requirements and apply the following procedure. (See also the Scan Station manual).  
As soon as the application has initiated the upload, the Océ 9400 printer panel displays "SCANMODE", after which the system is ready to make uploads.
- 3 Insert an original into the scanner, adjust the settings on the scanner's operating panel to your requirements, and press the scanner's Start-button (see also notes below).
- 4 When the original has been scanned and transported back to its starting position, a checkplot will be made, if you have selected this option in the Scan Station application. The checkplot is made on the media which you have selected on the scanner's operating panel.
- 5 The Océ 9400 controller then creates the file which will be uploaded to the PC. When the file has been uploaded, it can be viewed on the PC.
- 6 You can modify the settings on the PC and on the scanner and then scan another original, or re-scan the current original using the new settings.
- 7 The Upload process can be stopped on the PC and the Océ 9400 will then be free for print and/or copy jobs. (See also the Scan Station manual)

The following buttons on the Océ 9400 scanner operating panel are disabled when the machine is in Upload mode:

- Cut
- Edge, except negative leading edge
- Zoom
- The display of the number of copies is fixed at "1" if checkplot has been enabled on the Scan Station application.

The following buttons on the Océ 9400 scanner operating panel are disabled when the machine is in Upload mode and checkplot has been disabled:

- Media
- + and - for number of copies
- The display of the number of copies is cleared.

The size of the drawing which can be uploaded, (and printed with checkplot), is limited by the amount of memory installed in the Océ 9400 controller and by the bitmap partitioning (see 'Setting the bitmap buffer' on page 33).

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## Chapter 7

# Customizing defaults

*How to set the Océ 9400 defaults to accommodate the print jobs that you use most frequently.*

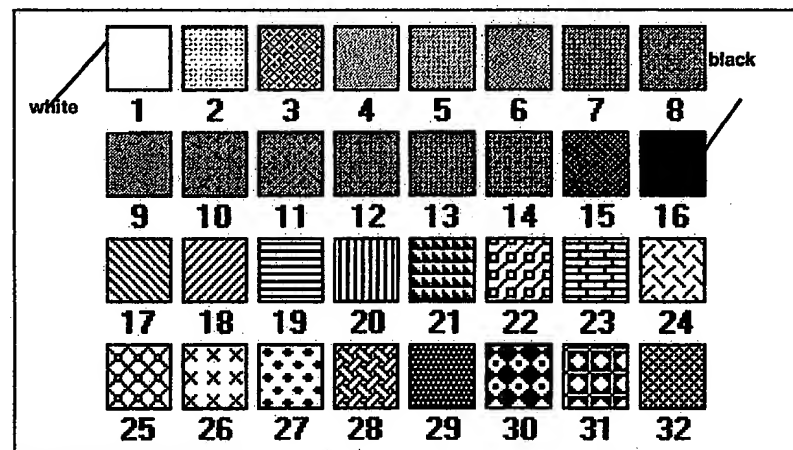


## Defining pen settings

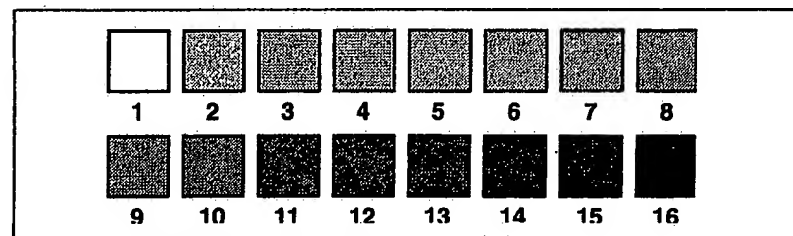
The pen settings for the files you want to print can be changed in the pen menu. The default width and pattern for each pen number can be changed in this menu. These settings apply to all vector languages: HP-GL, HP-GL/2, CalComp, VDF and BGL.

The rendering function can be divided into clustered or cloud. With this option you can change the first 16 pen patterns into another 16 gray-shaded pen patterns.

**Attention:** *Clustered must be used if your originals contain large gray areas. Use cloud to get an optimal result with line drawings.*



[27] Available pen patterns



[28] The rendering function gray shaded patterns

#### ▼ Defining pen settings

- 1 Press **Program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **Next/select** to go to the CONFIGURATION menu.
- 4 Select the PEN MENU option using the ◀ or ▶ button.
- 5 Press **Next/select** to go to the PEN MENU.

For each pen to be set up, apply the following procedure:

- 6 Select the PEN NUMBER item using the ◀ or ▶ button.
- 7 Press **Next/select** to go to the PEN NUMBER menu.
- 8 Select the required PEN NUMBER using the ◀ or ▶ button.
- 9 Press **Next/select** to confirm the selected pen number.
- 10 Press **Previous** to return to the pen menu.

Then:

- 11 Select the PEN WIDTH item using the ◀ or ▶ button.
- 12 Press **Next/select** to go to the PEN WIDTH menu.
- 13 Select the required pen width using the ◀ or ▶ button.
- 14 Press **Next/select** to confirm the selected pen width.
- 15 Press **Previous** to return to the pen menu.
- 16 Select the PEN PATTERN item using the ◀ or ▶ button.
- 17 Press **Next/select** to go to the PEN PATTERN menu.
- 18 Select the appropriate pen pattern using the ◀ or ▶ button.
- 19 Press **Next/select** to confirm the selected pen pattern.

After programming all pen settings:

- 20 Press **Program** to leave the main menu.

#### ▼ Defining rendering

- 1 Press **Program** to enter the main menu.
  - 2 Select the CONFIGURATION item using the ◀ or ▶ button.
  - 3 Press **Next/select** to enter the CONFIGURATION menu.
  - 4 Select the RENDERING option using the ◀ or ▶ button.
  - 5 Press **Next/select** to enter the RENDERING MENU.
  - 6 Select the required option clustered or cloud using the ◀ or ▶ button.
  - 7 Press **Next/select** to confirm the selected option.
- Press **Program** to leave the main menu.



---

## Defining language settings

The Océ 9400 accepts print files in various data formats (languages). You can change the settings for PostScript, VDF, BGL, HP-GL, HP-GL/2, HP-RTL, CalComp, CALS, TIFF or EDMICS.

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### Automatic language sensing

Automatic language sensing (ALS) is the mechanism which the system uses to detect the language (data format) of a file for which the format has not been specified in the file header. ALS scans the file contents for clues about the data format. Automatic language sensing can be switched on/off. By default, ALS is on.

ALS enables the printer to switch between:

- Océ languages (VDF and BGL), PostScript, HP-GL, HP-GL/2, HP-RTL, CalComp, CALS, TIFF or EDMICS

Use the ALS formats parameter to define which data formats are to be searched for in the print files.

**Note:** *When using ALS, it is very important that every print file terminates with an end-of-print instruction.*



#### Activating ALS

- 1 Press **Program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the DATA FORMAT item using the ◀ or ▶ button.
- 5 Press **next/select** to go to the DATA FORMAT menu.
- 6 Select the SELECT FORMAT item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the SELECT FORMAT menu.
- 8 Select the AUTO item using the ◀ or ▶ button.
- 9 Press **next/select** to set up this mode.
- 10 Press **Program** to leave the main menu.

## Data format recognition

To optimize your printer's language recognition and reduce the risk of errors, each of the above-mentioned data formats can be individually set ON or OFF. The default is ON.

### ▼ Optimizing data format recognition

- 1 Press **Program** to go to the main menu.
  - 2 Select the CONFIGURATION item using the ◀ or ▶ button.
  - 3 Press **Navigation** to go to the CONFIGURATION menu.
  - 4 Select the DATA FORMAT item using the ◀ or ▶ button.
  - 5 Press **Navigation** to go to the DATA FORMAT menu.
  - 6 Select the AUTO MENU item using the ◀ or ▶ button.
  - 7 Press **Navigation** to go to the AUTO MENU menu.
- Follow the steps below to configure each of the graphics languages:
- 8 Select the required GRAPHICS LANGUAGE item using the ◀ or ▶ button.
  - 9 Press **Navigation** to go to the required language menu.
  - 10 Select YES or NO using the ◀ or ▶ button.
  - 11 Press **Navigation** to confirm the selected setting.
  - 12 Press **Previous** to return to the GRAPHICS LANGUAGE menu.
- After programming all languages:
- 13 Press **Program** to leave the main menu.

## Manual data format selection

If required, each of the data formats can be selected manually.

**Note:** *ALS is inactive.*



### Setting manual data format

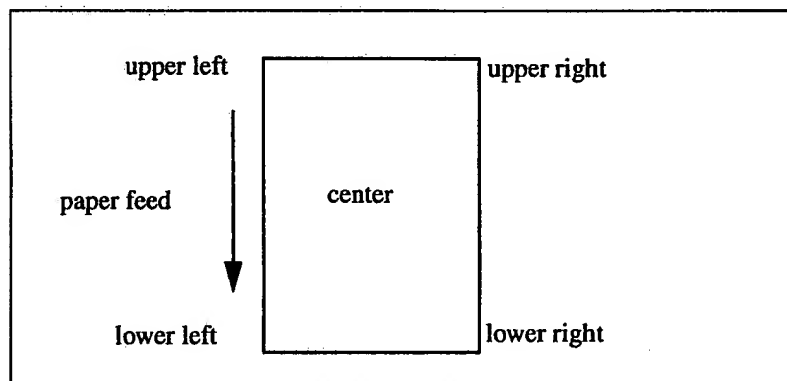
- 1 Press **main** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the DATA FORMAT item using the ◀ or ▶ button.
- 5 Press **next/select** to go to the DATA FORMAT menu.
- 6 Select the SELECT FORMAT item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the SELECT FORMAT menu.
- 8 Select the required language using the ◀ or ▶ button.
- 9 Press **next/select** to confirm the selected language.
- 10 Press **main** to leave the main menu.

**Note:** *When PostScript is selected, RCF headers are not recognized.*

## Océ languages (VDF/BGL)

### Océ print origin

The point on the paper at which printing starts depends on the print origin. You can choose between: upper right, upper left, center, lower right and lower left (see figure 29). The default is lower right.



[29] Print origin options

#### ▼ Defining the print origin

- 1 Press **Program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the DATA FORMAT item using the ◀ or ▶ button.
- 5 Press **next/select** to go to the DATA FORMAT menu.
- 6 Select the OCE SETUP item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the OCE SETUP menu.
- 8 Select ORIGIN item using the ◀ or ▶ button.
- 9 Press **next/select** to go to the ORIGIN menu.
- 10 Select the required origin using the ◀ or ▶ button.
- 11 Press **next/select** to confirm the selected origin.
- 12 Press **Program** to leave the main menu.

## Océ step size

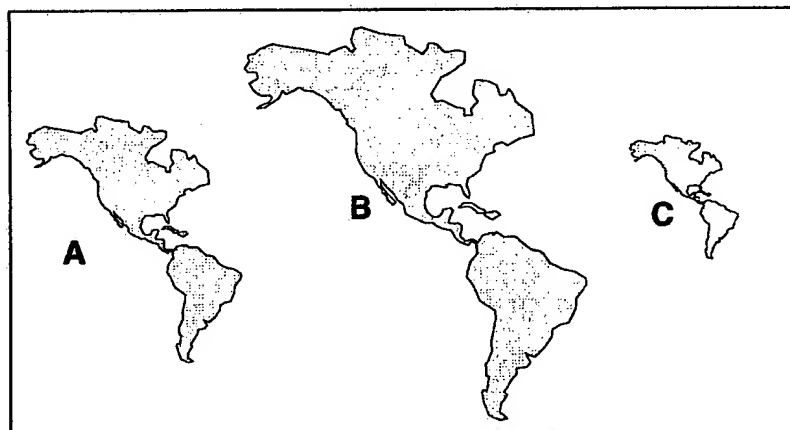
The Océ 9400 offers four different step sizes: 12.5  $\mu\text{m}$ , 25  $\mu\text{m}$ , 50  $\mu\text{m}$  and 100  $\mu\text{m}$  (see figure 30). Be careful when choosing the step size: the wrong step size will negatively affect the scale of your drawing. The default is 25.

The figure below provides three examples of how step size works:

Drawing A was printed with 50  $\mu\text{m}$  step size as defined in the software. The scale is correct.

Drawing B shows the same drawing printed with 100  $\mu\text{m}$  step size. The print is twice its normal size.

Drawing C shows the same drawing printed with 25  $\mu\text{m}$  step size. The print is half its normal size.



[30] Step size



### Defining the step size

- 1 Press **PROGRAM** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **NEXT/GO** to go to the CONFIGURATION menu.
- 4 Select the DATA FORMAT item using the ◀ or ▶ button.
- 5 Press **NEXT/GO** to go to the DATA FORMAT menu.
- 6 Select the OCE SETUP item using the ◀ or ▶ button.
- 7 Press **NEXT/GO** to go to the OCE SETUP menu.
- 8 Select the STEP SIZE item using the ◀ or ▶ button.

- 9 Press **next/select** to go to the STEP SIZE menu.
- 10 Select the required step size using the ◀ or ▶ button.
- 11 Press **next/select** to confirm the selected value.
- 12 Press **program** to leave the main menu.

## Océ pen priority

You can define pen parameters in the print file, either in a remote configuration file, or from the printer control panel. The pen priority option allows you to define which set of pen parameters you want to use. The default is Language.

If **Language** is selected, the pen parameters defined in the data file will be used. If **Setup** is selected, the pen parameter defined on the printer operating panel, or in the optional remote configuration file, will be used.



### Defining Océ pen priority

- 1 Press **program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the DATA FORMAT item using the ◀ or ▶ button.
- 5 Press **next/select** to go to the DATA FORMAT menu.
- 6 Select the OCE SETUP item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the OCE SETUP menu.
- 8 Select the PEN PRIORITY item using the ◀ or ▶ button.
- 9 Press **next/select** to go to the PEN PRIORITY menu.
- 10 Select the required pen priority setting using the ◀ or ▶ button.
- 11 Press **next/select** to confirm the selected pen priority.
- 12 Press **program** to leave the main menu.

## HP-GL

This function allows you to define settings for HP-GL file types.

### HP-GL print origin

The point on the paper at which printing starts depends on the print origin. You can choose between: upper right, upper left, center, lower right and lower left (see figure 29 on page 83). The default is Center.



#### Defining the HP-GL print origin

- 1 Press **program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/enter** to go to the CONFIGURATION menu.
- 4 Select the DATA FORMAT item using the ◀ or ▶ button.
- 5 Press **next/select** to go to the DATA FORMAT menu.
- 6 Select the HP-GL SETUP item using the ◀ or ▶ button.
- 7 Press **next/enter** to go to the HP-GL SETUP menu.
- 8 Select the ORIGIN item using the ◀ or ▶ button.
- 9 Press **next/select** to go to the ORIGIN menu.
- 10 Select the required origin using the ◀ or ▶ button.
- 11 Press **next/select** to confirm the selected origin.
- 12 Press **program** to leave the main menu.

### HP-GL page advance

The Select Pen Zero (SP0) command in HP-GL can be interpreted in two ways:

If page advance is set to **yes**, the printer responds to the HP-GL instruction SP0 as if it were an end-of-print indicator.

If page advance is set to **no**, the printer responds to the HP-GL instruction SP0 as if it were a select pen zero command. Any vectors following the SP0 are then printed with the default pen attributes of width = 3 pixels and pattern = 16 (black). The page advance default is Yes.

#### ▼ Setting the HP-GL page advance

- 1 Press **program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the DATA FORMAT item using the ◀ or ▶ button.
- 5 Press **next/select** to go to the DATA FORMAT menu.
- 6 Select the HP-GL SETUP item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the HP-GL SETUP menu.
- 8 Select the required PAGE ADVANCE item using the ◀ or ▶ button.
- 9 Press **next/select** to go to the PAGE ADVANCE menu.
- 10 Select YES or NO using the ◀ or ▶ button.
- 11 Press **next/select** to confirm the selected setting.
- 12 Press **program** to leave the main menu.

---

## Merge mode

This option determines what happens when two or more colors intersect at the same point in a plot, especially in area fills. The default setting is On.

**Merge Off** Only the last color specified is printed for a given line or area. The other colors specified for the same line or area are transparent.

**Merge On** All the specified colors are blended together.

#### ▼ Setting the merge mode

- 1 Press **program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the DATA FORMAT item using the ◀ or ▶ button.
- 5 Press **next/select** to go to the DATA FORMAT menu.
- 6 Select the HP-GL SETUP item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the HP-GL SETUP menu.
- 8 Select the required MERGE item using the ◀ or ▶ button.
- 9 Press **next/select** to go to the MERGE menu.
- 10 Select YES or NO using the ◀ or ▶ button.
- 11 Press **next/select** to confirm the selected setting.
- 12 Press **program** to leave the main menu



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## HP-GL/2

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### HP-GL/2 print origin

The point on the paper at which printing starts depends on the print origin. You can choose between: upper right, upper left, center, lower right and lower left (see figure 29 on page 83). The default is lower right.

▼ **Defining the HP-GL/2 print origin**

- 1 Press **Program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the DATA FORMAT item using the ◀ or ▶ button.
- 5 Press **next/select** to go to the DATA FORMAT menu.
- 6 Select the HP-GL/2 SETUP item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the HP-GL/2 SETUP menu.
- 8 Select the ORIGIN item using the ◀ or ▶ button.
- 9 Press **next/select** to go to the ORIGIN menu.
- 10 Select the required origin item using the ◀ or ▶ button.
- 11 Press **next/select** to confirm the selected origin.
- 12 Press **Program** to leave the main menu.

---

### HP-GL/2 page advance

The SP0 command in HP-GL/2 can be interpreted in two ways, depending on the printer being emulated.

If page advance is set to **yes**, the printer responds to the HP-GL/2 instruction SP0 as if it were an end-of-print indicator.

If page advance is set to **no**, the printer responds to the HP-GL/2 instruction SP0 as if it were a select pen zero command. Any vectors following the SP0 are then printed with the default pen attributes of width = 3 pixels and pattern = 16 (black). The default is Yes.

#### ▼ Setting the HP-GL/2 page advance

- 1 Press **Program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the DATA FORMAT item using the ◀ or ▶ button.
- 5 Press **next/select** to go to the DATA FORMAT menu.
- 6 Select the HP-GL/2 SETUP item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the HP-GL/2 SETUP menu.
- 8 Select the PAGE ADVANCE item using the ◀ or ▶ button.
- 9 Press **next/select** to go to the PAGE ADVANCE menu.
- 10 Select the required page advance using the ◀ or ▶ button.
- 11 Press **next/select** to confirm the selected page advance.
- 12 Press **Program** to leave the main menu.

## HP-GL/2 pen priority

You can define pen parameters in the print file, either in a remote configuration file or from the printer control panel. The pen priority option allows you to define which set of pen parameters you want to use.

If **Language** is selected, the pen parameters defined in the data file will be used. If **Setup** is selected, the pen parameter defined on the printer operating panel, or in the optional remote configuration file, will be used. The default is **Language**.

#### ▼ Defining HP-GL/2 pen priority

- 1 Press **Program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the DATA FORMAT item using the ◀ or ▶ button.
- 5 Press **next/select** to go to the DATA FORMAT menu.
- 6 Select the HP-GL/2 SETUP item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the HP-GL/2 SETUP menu.
- 8 Select the PEN PRIORITY item using the ◀ or ▶ button.
- 9 Press **next/select** to go to the PEN PRIORITY menu.
- 10 Select the required pen priority using the ◀ or ▶ button.
- 11 Press **next/select** to confirm the selected pen priority.
- 12 Press **Program** to leave the main menu.

## Designjet compatibility

If you print a color data file on a black-and-white printer, the result may be not satisfactory. If you emulate the HP 650C, the information which is defined in color is printed in black; if you emulate to print on the HP 750C, the information which is defined in color will be printed in gray scale levels.

### ▼ Defining Designjet compatibility

- 1 Press **Program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the DATA FORMAT item using the ◀ or ▶ button.
- 5 Press **next/select** to go to the DATA FORMAT menu.
- 6 Select the HP-GL/2 SETUP item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the HP-GL SETUP/2 menu.
- 8 Select the required DESIGNJET item using the ◀ or ▶ button.
- 9 Press **next/select** to go to the DESIGNJET menu.
- 10 Select YES or NO using the ◀ or ▶ button.
- 11 Press **next/select** to confirm the selected setting.
- 12 Press **Program** to leave the main menu.

## Merge mode

This option determines what happens when two or more colors intersect at the same point in a plot, especially in area fills. The default setting is On.

**Merge Off** Only the last color specified is printed for a given line or area. The other colors specified for the same line or area are transparent.

**Merge On** All the specified colors are blended together.

### ▼ Setting the merge mode

- 1 Press **Program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the DATA FORMAT item using the ◀ or ▶ button.
- 5 Press **next/select** to go to the DATA FORMAT menu.
- 6 Select the HP-GL/2 SETUP item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the HP-GL/2 SETUP menu.
- 8 Select the required MERGE item using the ◀ or ▶ button.

- 9 Press **next/esc** to go to the MERGE menu.
- 10 Select YES or NO using the ◀ or ▶ button.
- 11 Press **next/esc** to confirm the selected setting.
- 12 Press **program** to leave the main menu

---

## HP-RTL

HP-RTL is a subset of HP-GL/2. Hence, all HP-RTL plot data files must start with ESC%-1BBPIN: or BPIN.

To use HP-RTL, the SELECT FORMAT should be set to AUTO or HP-GL/2 on the operating panel, or HP-GL/2 must be selected via a remote control file.

**Note:** *HP-RTL plot data files must close with ESC%OB; PG; which will switch the printer back to HP-GL/2 format mode. Without this command, the plot results will be unpredictable and the printer will stop.*

The following HP-RTL statements are not recognised by the Océ 9400 and will be treated as no-ops: ESC\*v#a, ESC\*v#b, ESC\*v#c, ESC\*v#i, ESC\*v#W[data], ESC\*b#l and ESC&b#V[data].

---

# CalComp

The Océ 9400 supports use of the CalComp graphics language.

---

## CalComp print origin

The point on the paper at which drawing starts depends on the print origin: upper right, upper left, center, lower right and lower left (see figure 29 on page 83).

The default CalComp origin is lower right. This print origin is used for all CalComp files, whether the format is set to CalComp or Auto, even if a remote control command for CalComp is sent.

▼ **Defining the print origin**

- 1 Press **main** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/prev** to go to the CONFIGURATION menu.
- 4 Select the DATA FORMAT item using the ◀ or ▶ button.
- 5 Press **next/prev** to go to the DATA FORMAT menu.
- 6 Select the CALCOMP SETUP item using the ◀ or ▶ button.
- 7 Press **next/prev** to go to the CALCOMP SETUP menu.
- 8 Select the ORIGIN item using the ◀ or ▶ button.
- 9 Press **next/prev** to go to the ORIGIN menu.
- 10 Select the required origin item using the ◀ or ▶ button.
- 11 Press **next/select** to confirm the selected origin.
- 12 Press **main** to leave the main menu.

---

## Checksum parameter

The checksum parameter is significant in all cases in which the CalComp format is selected or auto-recognized, and select format is set to Auto or a remote control command for CalComp is sent. The default is Yes.

#### ▼ Defining the checksum parameter

- 1 Press **Program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the DATA FORMAT item using the ◀ or ▶ button.
- 5 Press **next/select** to go to the DATA FORMAT menu.
- 6 Select the CALCOMP SETUP item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the CALCOMP SETUP menu.
- 8 Select the CHECKSUM item using the ◀ or ▶ button.
- 9 Press **next/select** to go to the CHECKSUM menu.
- 10 Select YES or NO using the ◀ or ▶ button.
- 11 Press **next/select** to confirm the selected setting.
- 12 Press **Program** to leave the main menu.

---

### CalComp pen priority

You can define pen parameters in the print file, either in a remote configuration file or from the printer control panel. The pen priority option allows you to define which set of pen parameters you want to use.

If **Language** is selected, the pen parameters defined in the data file will be used. If **Setup** is selected, the pen parameter defined on the printer operating panel, or in the optional remote configuration file, will be used. The default is **Language**.

- 1 Press **Program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the DATA FORMAT item using the ◀ or ▶ button.
- 5 Press **next/select** to go to the DATA FORMAT menu.
- 6 Select the CALCOMP SETUP item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the CALCOMP SETUP menu.
- 8 Select the PEN PRIORITY item using the ◀ or ▶ button.
- 9 Press **next/select** to go to the PEN PRIORITY menu.
- 10 Select the required pen priority using the ◀ or ▶ button.
- 11 Press **next/select** to confirm the selected pen priority.
- 12 Press **Program** to leave the main menu

---

## Merge mode

This option determines what happens when two or more colors intersect at the same point in a plot, especially in area fills. The default setting is On.

**Merge Off** Only the last color specified is printed for a given line or area. The other colors specified for the same line or area are transparent.

**Merge On** All the specified colors are blended together.



### Setting the merge mode

- 1 Press **Program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **Next/Go to** to go to the CONFIGURATION menu.
- 4 Select the DATA FORMAT item using the ◀ or ▶ button.
- 5 Press **Next/Select** to go to the DATA FORMAT menu.
- 6 Select the CALCOMP SETUP item using the ◀ or ▶ button.
- 7 Press **Next/Go to** to go to the CALCOMP SETUP menu.
- 8 Select the required MERGE item using the ◀ or ▶ button.
- 9 Press **Next/Go to** to go to the MERGE menu.
- 10 Select YES or NO using the ◀ or ▶ button.
- 11 Press **Next/Go to** to confirm the selected setting.
- 12 Press **Program** to leave the main menu

---

## End of Message parameter

The End of Message (EOM) parameter is significant in all cases in which the CalComp format is selected or auto-recognized, and select format is set to Auto, or a remote control command for CalComp is sent.

Possible values range from 0 to 31 DEC. The selected value is the decimal equivalent of the byte indicating the end of the data sequence. It should be a unique character in the character set used to code the data. The default EOM is 3.



### Setting the End of Message parameter

- 1 Press **Program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **Next/Go to** to go to the CONFIGURATION menu.
- 4 Select the DATA FORMAT item using the ◀ or ▶ button.

- 5 Press **next/select** to go to the DATA FORMAT menu.
- 6 Select the CALCOMP SETUP item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the CALCOMP SETUP menu.
- 8 Select the END OF MESSAGE item using the ◀ or ▶ button.
- 9 Press **next/select** to go to the END OF MESSAGE menu.
- 10 Select the required value using the ◀ or ▶ button.
- 11 Press **next/select** to confirm the selected value.
- 12 Press **program** to leave the main menu.

## Synchronization code parameter

The synchronization code parameter is significant in all cases in which the CalComp format is selected or auto-recognized, and select format is set to Auto, or a remote control command for CalComp is sent.

Possible values range from 0 to 63 DEC. The selected value is the decimal equivalent of the byte to be interpreted as the beginning of a block of print data. The default synchronization code is 2.



### Setting the synchronization code parameter

- 1 Press **program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the DATA FORMAT item using the ◀ or ▶ button.
- 5 Press **next/select** to go to the DATA FORMAT menu.
- 6 Select the CALCOMP SETUP item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the CALCOMP SETUP menu.
- 8 Select the SYNC CODE item using the ◀ or ▶ button.
- 9 Press **next/select** to go to the SYNC CODE menu.
- 10 Select the required sync code using the ◀ or ▶ button.
- 11 Press **next/select** to confirm the selected sync code.
- 12 Press **program** to leave the main menu.

## Double synchronization code parameter

The double synchronization code parameter is significant in all cases in which the CalComp format is selected or auto-recognized, and select format is set to Auto, or a remote control command for CalComp is sent.



The double synchronization parameter allows use of one or two synchronization characters to identify the beginning of a message of print data. If set to double synchronization, the same character is sent twice. The default is No.

▼ **Setting the double synchronization code parameter**

- 1 Press **Program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the DATA FORMAT item using the ◀ or ▶ button.
- 5 Press **next/select** to go to the DATA FORMAT menu.
- 6 Select the CALCOMP SETUP item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the CALCOMP SETUP menu.
- 8 Select the DOUBLE SYNC item using the ◀ or ▶ button.
- 9 Press **next/select** to go to the DOUBLE SYNC menu.
- 10 Select the required double sync using the ◀ or ▶ button.
- 11 Press **next/select** to confirm the selected value.
- 12 Press **Program** to leave the main menu.

---

## CalComp step size

If the data format type is set to CalComp (manual, auto selection or remote control command), seven steps are provided (100 dpi to 4064 dpi). The default is 2032.

▼ **Setting the appropriate step size**

- 1 Press **Program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the DATA FORMAT item using the ◀ or ▶ button.
- 5 Press **next/select** to go to the DATA FORMAT menu.
- 6 Select the CALCOMP SETUP item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the CALCOMP SETUP menu.
- 8 Select the STEP SIZE item using the ◀ or ▶ button.
- 9 Press **next/select** to go to the STEP SIZE menu.
- 10 Select the required value using the ◀ or ▶ button.
- 11 Press **next/select** to confirm the selected value.
- 12 Press **Program** to leave the main menu.

---

## Raster formats

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### CALS

CALS stands for Computer Aided Acquisition and Logistics Support. The Océ 9400 printer supports CALS type 1 files. (Untiled, compatible with CCITT Group 4 format).

---

### NIRS

NIRS is a sub-set of CALS. The data format consists of a CALS header followed by an NIRS header, followed by TIFF raster data.

---

### TIFF

TIFF (Tagged Information File Format).

The Océ 9400 printer supports the following TIFF 6.0 files:

- Raw (no compression)
- Compressed:
  - PACKBIT byte oriented, run-length
  - Modified Huffman (based on CCITT G3 1D)
  - CCITT Group 3 1 D and 2 D, run-length
  - CCITT Group 4.

---

### C4 (EDMICS)

C4 data format consists of a header followed by compressed CCITT 4 raster data.

*Note: No specific settings are necessary for the above raster languages.*

---

## PostScript level 2

The Océ PostScript level 2 printer option can be used to print PostScript files on the Océ 9400. Océ provides host software which enables you to print from Windows or Macintosh applications.

This enables your printer to become a true wide-format printer, producing monochrome posters from Illustrator, Word, Excel, QuarkXpress, Powerpoint, Pagemaker etc. as well as CAD or electronic design applications, among others.

Your PostScript document can be printed on any PostScript printer - in most cases without any decrease in output quality. The Océ 9400 PostScript driver, which enables you to select printer features simply and easily, translates data generated by the application into PostScript.

---

## PostScript data format selection

When the PostScript option is installed, your printer will automatically recognize the PostScript language sent to the printer.

**Note:** *When using the EtherTalk connection, PostScript must be selected via the operating panel (via Ethernet - Print Server option).*

**Note:** *It is very important that every print file terminates with an end of print instruction. The PostScript end of print instruction is "Ctrl D". Any files in the Media Saver will be flushed (printed) before the PostScript file is interpreted.*

*If your print is not recognized correctly, resend it with the appropriate data format. Select the data format via the control panel or specify the correct format in a remote control file.*

---

## Manual data format selection

The printer must be manually set to PostScript before using interactive mode with the Serial or Ethertalk option (particularly for Macintosh). Refer to 'Setting manual data format' on page 82.

## PostScript page layout

The orientation of the printed page on the roll can be either landscape or portrait.



### Selecting the PostScript page layout

- 1 Press **Program** to enter the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to enter the CONFIGURATION menu.
- 4 Select the DATA FORMAT item using the ◀ or ▶ button.
- 5 Press **next/select** to enter the DATA FORMAT menu.
- 6 Select the PS SETUP item using the ◀ or ▶ button.
- 7 Press **next/select** to enter the PS SETUP menu.
- 8 Select the PAGE LAYOUT item using the ◀ or ▶ button.
- 9 Press **next/select** to enter PAGE LAYOUT menu.
- 10 Select the required page layout using the ◀ or ▶ button.
- 11 Press **next/select** to confirm the selected page layout.
- 12 Press **Program** to leave the main menu.

## Default PostScript page size

This option can be used to specify the dimensions of the media on which you wish your document to be printed (e.g. D, A1, A4, etc.). The settings specified using this option are used only in cases in which the format is not specified in the PostScript file.



### Selecting the default PostScript page size

- 1 Press **Program** to enter the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to enter the CONFIGURATION menu.
- 4 Select the DATA FORMAT item using the ◀ or ▶ button.
- 5 Press **next/select** to enter the DATA FORMAT menu.
- 6 Select the PS SETUP item using the ◀ or ▶ button.
- 7 Press **next/select** to enter the PS SETUP menu.
- 8 Select the DEF PAGE SIZE item using the ◀ or ▶ button.
- 9 Press **next/select** to enter the DEF PAGE SIZE menu.
- 10 Select the required page size using the ◀ or ▶ button.
- 11 Press **next/select** to confirm the selected page size.
- 12 Press **Program** to leave the main menu.

**Note:** *The page size defined in the PostScript driver overrides the default PostScript page size setting.*

*Manual feed and Autoscale-to-format are not supported by the PostScript driver. These functions can, however, be activated via the printer operating panel.*

---

## **Chapter 8**

# **Advanced menu functions**

*This chapter describes the more advanced print functions.*



---

## End of plot time-out

Normally, print files end with an instruction which tells the printer that the file is finished.

However, some print data files do not have an end of print instruction. In such cases, the print is considered 'finished' when the printer does not receive any more graphic commands.

The print time-out option sets the delay after which the print is considered as finished. The print time-out can be set at 15, 30, 180 or 500 seconds. The default is 180.



### Defining the end of plot time-out

- 1 Press **Program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the DATA FORMAT item using the ◀ or ▶ button.
- 5 Press **next/select** to go to the DATA FORMAT menu.
- 6 Select the PLOT TIME-OUT item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the PLOT TIME-OUT menu.
- 8 Select the required plot time-out using the ◀ or ▶ button.
- 9 Press **next/select** to confirm the selected plot time-out.
- 10 Press **Program** to leave the main menu.

## Selecting the media saver

The Océ 9400 offers two options for optimizing usage of print media: Nesting and Autoposition. This applies to both vector and raster formats. The media saver can also be set off.

Media saver is flushed:

- after a time-out
- when a copy job interrupts the printing process
- when selecting another roll or manual feed
- by the flush media saver on the printer operating panel. See also 'Flush media saver' on page 106.

**Note:** When automatic roll selection is used, the media saver is inactive.

The following settings must be specified before the media saver can be used:

- cut method = synchro
- center = off
- leading and trailing edges = 0.

## Nesting

When nesting is selected, prints are stored in queues in the printer's memory, according to their size: A4 or A, A3 or B, A2 or C and mixed A4/A3. When the queue is full, the drawings are printed across the full width of the media.

The minimum paper length is 420 mm. Therefore, when printing A3 landscape or A4, an extra strip of white paper appears at the end.

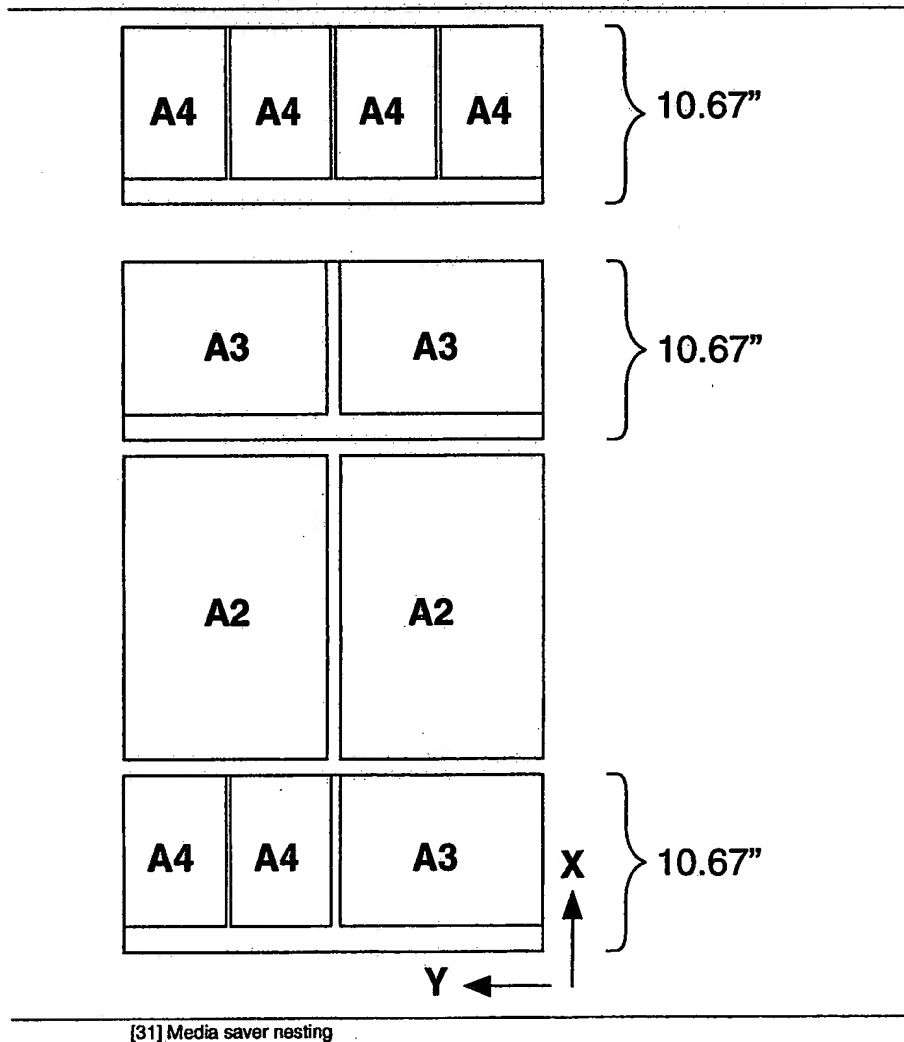
If the print is larger than A2 or C size, it will not be stored in a queue, but will be printed normally. If prints are not standard ISO, ANSI or Architecture sizes, the next larger format is used (see figure 31 on page 104).

### Selecting nesting

- 1 Press **Program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the PLOT MANAGER item using the ◀ or ▶ button.



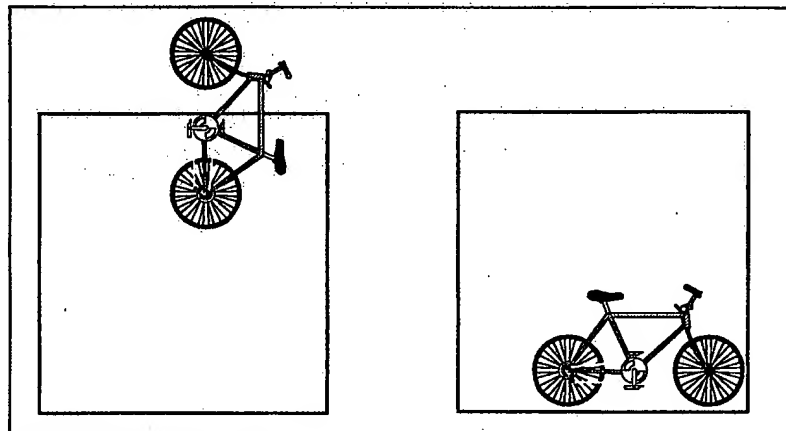
- 5 Press **EXIT/GO BACK** to go to the PLOT MANAGER menu.
- 6 Select the MEDIA SAVER item using the ◀ or ▶ button.
- 7 Press **EXIT/GO BACK** to go to the MEDIA SAVER menu.
- 8 Select the M/S MODE item using the ◀ or ▶ button.
- 9 Press **EXIT/GO BACK** to go to the M/S MODE menu.
- 10 Select the NESTING item using the ◀ or ▶ button.
- 11 Press **ENTER/OK** to select the required setting.
- 12 Press **EXIT/GO BACK** to leave the main menu.



## Autoposition

This option ignores the origin contained in the print file and automatically shifts the print data to the lower right-hand corner of the media. If necessary, prints are rotated 90 ° to make better use of the available media.

The autoposition feature helps eliminate the need to clip prints and reduces waste of media.



[32] Autoposition to save media

### ▼ Selecting autoposition

- 1 Press **Program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the PLOT MANAGER item using the ◀ or ▶ button.
- 5 Press **next/select** to go to the PLOT MANAGER menu.
- 6 Select the MEDIA SAVER item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the MEDIA SAVER menu.
- 8 Select the M/S MODE item using the ◀ or ▶ button.
- 9 Press **next/select** to go to the M/S MODE menu.
- 10 Select the AUTO POSITION item using the ◀ or ▶ button.
- 11 Press **next/select** to select the required setting.
- 12 Press **Program** to leave the main menu.

### ▼ De-selecting the media saver

- 1 Use the above procedure and select media saver OFF.

---

## Media saver time-out

As explained in the previous section, when the media saver queue is full, the drawings are printed. However, to prevent unnecessary delays for prints in partially full queues, a time-out of 1 to 60 minutes can be set, after which the contents of the queue are printed.

### ▼ Setting the media saver time-out

- 1 Press **program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/enter** to go to the CONFIGURATION menu.
- 4 Select the PLOT MANAGER item using the ◀ or ▶ button.
- 5 Press **next/enter** to go to the PLOT MANAGER menu.
- 6 Select the MEDIA SAVER item using the ◀ or ▶ button.
- 7 Press **next/enter** to go to the MEDIA SAVER menu.
- 8 Select the M/S TIME-OUT item using the ◀ or ▶ button.
- 9 Press **next/enter** to go to the M/S TIME-OUT menu.
- 10 Select the required value using the ◀ or ▶ button.
- 11 Press **next/enter** to confirm the selected value.
- 12 Press **program** to leave the main menu.

---

## Flush media saver

Using this option, prints being held in the media saver memory can be printed immediately.

### ▼ Setting the flush media saver

- 1 Press **program** to go to the main menu.
- 2 Select the FLUSH M.SAVER item using the ◀ or ▶ button.
- 3 Press **next/enter** to print the file being held.
- 4 Press **program** to leave the main menu.

## Media saver plot size

When the media saver is set to Nesting, three paper size options are available:  
**STD NO CLIP** The print is scaled to fit on the paper size selected. It is not clipped.

**STD CLIPPED** If necessary, the print is clipped to fit onto the paper size selected.

**NON STANDARD** The print is drawn as defined in the print data file. Paper size depends on the size of the plot.

The default is NON-STANDARD.



### Setting the media saver plot size

- 1 Press to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press to go to the CONFIGURATION menu.
- 4 Select the PLOT MANAGER item using the ◀ or ▶ button.
- 5 Press to go to the PLOT MANAGER menu.
- 6 Select the MEDIA SAVER item using the ◀ or ▶ button.
- 7 Press to go to the MEDIA SAVER menu.
- 8 Select the M/S PLOT SIZE item using the ◀ or ▶ button.
- 9 Press to go to the M/S PLOT SIZE menu
- 10 Select the required setting using the ◀ or ▶ button.
- 11 Press to confirm the selected setting.
- 12 Press to leave the main menu.

---

# Replot

Normally, files are discarded after being processed and printed. The replot function, however, retains the file for use when making extra copies/prints. When REPLOT is enabled, extra copies/prints can be made directly via the operating panel.

The default is off.



## Enabling replot

- 1 Press **stop/print** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the REPLOT item using the ◀ or ▶ button.
- 5 Press **next/select** to go to the REPLOT menu.
- 6 Select the required setting using the ◀ or ▶ button.
- 7 Press **next/select** to confirm the setting.
- 8 Press **stop/print** to leave the main menu.

**Note:** Selecting *REPLOT ENABLE* may cause slower processing on some plots, due to the extra time required to save and store the plot data.





## Setting the number of copies

This option enables you to print multiple prints of the file currently in the printer's memory. The default is 0, and a maximum of 99 prints can be made, using this option.

**Note:** *This option is active only when replotting is enabled.*



### Defining the number of prints

- 1 Press  to go to the main menu.
- 2 Select the # COPIES item using the ◀ or ▶ button.
- 3 Press  to go to the # COPIES menu.
- 4 Select the required number of copies using the ◀ or ▶ button.
- 5 Press  to confirm the number of copies.
- 6 Press  to quit the main menu.

---

## Poster mode

Poster mode should be enabled when creating prints which contain black areas.



### Enabling Poster mode

- 1 Press **Program** to enter the main menu.
- 2 Select the POSTER MODE item using the ◀ or ▶ button.
- 3 Press **next/ok** to enter the POSTER MODE menu.
- 4 Select the Poster mode on/off using the ◀ or ▶ button.
- 5 Press **next/ok** to confirm Poster mode.
- 6 Press **Program** to quit the main menu.

**Note:** *This setting will be overruled by Plot Director, the drivers and the setting on the scanner operating panel.*

## Dump configuration

Dumping the configuration is an easy way to obtain a list, on paper, of the current print settings.

**Note:** *The dump configuration option cannot be activated while files are being processed.*

### ▼ Dumping the configuration

- 1 Press **EXIT/BACK** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **UTILITIES** to go to the CONFIGURATION menu.
- 4 Select the UTILITIES item using the ◀ or ▶ button.
- 5 Press **EXIT/BACK** to go to the UTILITIES menu.
- 6 Select the DUMP CONFIG item using the ◀ or ▶ button.
- 7 Press **ENTER** to confirm DUMP CONFIG.
- 8 Press **EXIT/BACK** to leave the main menu.



---

# Transformation

The Océ 9400 allows you to manipulate the position and size of the image on the print, using image rotation and scaling functions. This applies only to vector languages and is possible only when the media saver is switched off.

---

## Print rotation

This function allows you to set the rotation applied to a print. Four rotation values are possible: 0°, 90°, 180° and 270°. The default is 0°. This function applies only to vector languages.

▼ **Defining the print rotation**

- 1 Press **program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the PLOT MANAGER item using the ◀ or ▶ button.
- 5 Press **next/select** to go to the PLOT MANAGER menu.
- 6 Select the TRANSFORM item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the TRANSFORM menu.
- 8 Select the ROTATION item using the ◀ or ▶ button.
- 9 Press **next/select** to go to the ROTATION menu.
- 10 Select the required value using the ◀ or ▶ button.
- 11 Press **next/select** to confirm the setting.
- 12 Press **program** to leave the main menu.

---

## Print scaling

The X-scale and Y-scale can be individually set to values ranging from 0.05 to 20.0. The default is 1.0. This function applies only to vector languages.

▼ **Defining print scaling**

- 1 Press **program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the PLOT MANAGER item using the ◀ or ▶ button.
- 5 Press **next/select** to go to the PLOT MANAGER menu.

- 6 Select the TRANSFORM item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the TRANSFORM menu.
- 8 Select the SCALING item using the ◀ or ▶ button.
- 9 Press **next/select** to go to the SCALING menu.
- 10 Select the required scaling method using the ◀ or ▶ button.
- 11 Press **next/select** to go to the appropriate menu.

Follow the procedure below to define scaling for the X and Y axes individually:

- 12 Select the required setting using the ◀ or ▶ button.
- 13 Press **confirm** to confirm the setting.
- 14 Press **return** to leave the main menu.

**Note:** When autoscale is selected, x-scaling and y-scaling are not applicable.

---

## Autoscaling

Autoscale moden enables you to create documents on exact ISO/ANSI/Architect formats. The scaling factor applied to the X and Y axis is the same. An auto rotation can be performed to attain the best auto scale factor.

Although the Media Saver and the Autoscaling Mode are separately controlled, they do interact.

Autoscale mode can be activated in two ways;

- autoscale to a predefined format (ISO/ANSI/Architect)
- best fit.

The user can combine Autoscale and Autoposition: plost are first autoscaled (best fit or scale to format, if needed), and then autopositioned (if needed).

### Fit to Format Mode:

All drawings, regardless of their size, are reduced/enlarged to a single specific standard size. This option can be combined with the Media Saver option.

The list of predefined formats depends on the media format selected via the printer operating panel.

Users can enlarge drawings to poster size to make presentations to large audiences. They can also reduce documents to easily mail them or archive them in standard A3 (11x17") or A4 (8.25x11") books.

**Best fit Mode:**

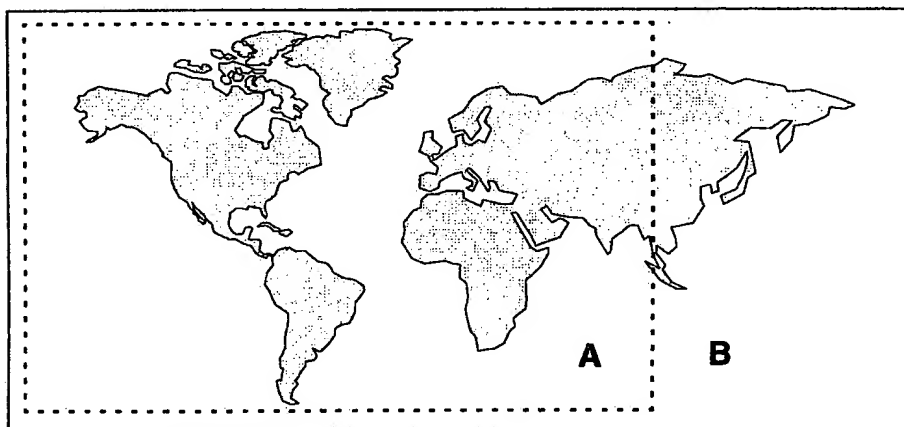
In this mode, the drawing will be reduced to fit in either the length or the width direction of the format loaded in the machine without losing information (no clipping). Only plots larger than the loaded media size are scaled/rotated. All other plots are printed without scaling.

**Note:** *This mode does not enlarge drawings, but only reduces them.*

This option cannot be used with the Nesting option. If Nesting is enabled, this option will have no result at all.

This mode prevents clipping of plots which are larger than the media loaded in the machine.

If AUTOSCALE is off, and if your drawing is larger than the physical dimensions of the media, the printer will automatically clip the area outside the margins. The CLIPPING message appears on the display while the printer automatically compensates for the discrepancy. Clipping does not affect the position of the print origin.



[33] Print clipping

A: Only the left part of the drawing is plotted.

B: The part of the drawing outside the margins is clipped.

#### ▼ Defining autoscaling

- 1 Press **Program** to go to the main menu.
- 2 Select the CONFIGURATION item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the CONFIGURATION menu.
- 4 Select the PLOT MANAGER item using the ◀ or ▶ button.
- 5 Press **next/select** to go to the PLOT MANAGER menu.
- 6 Select the TRANSFORM item using the ◀ or ▶ button.
- 7 Press **next/select** to go to the TRANSFORM menu.
- 8 Select the SCALING item using the ◀ or ▶ button.
- 9 Press **next/select** to go to the SCALING menu.
- 10 Select AUTOSCALE on, using the ◀ or ▶ button.
- 11 Press **next/select** to go to the AUTOSCALE menu.
- 12 Select OFF, BEST FIT, A4, A3, A2, A1, or A0 using the ◀ or ▶ button.
- 13 Press **next/select** to confirm the required setting
- 14 Press **Program** to leave the main menu.

# Display

As the printer may be operated in your work environment by users with different skill levels, three menu access levels can be set for security reasons. The display menu allows fully authorized users to access these different printer menu levels, from the locked level to the full menus levels, using passwords.

The short menu level allows access to the display, cancel plot, media settings and plot menus, enabling users to set plot parameters, execute the printer test and demo plot, set the number of copies and cancel plots in progress. The password for the short menu is: ◀ ◀ **previous** ▶ ▶.

The full menus level allows access to the display, plot, configuration, cancel plot and number of copies menu and their sub-menus. The password for the full menu is: ◀ ▶ **previous** ▶ ◀.

The locked level locks the entire printer. When this level is set, the printer acts only as an output device, receiving commands from your workstation via remote control. Although commands cannot be entered on the operating panel, informative messages are still displayed. The password for the locked menu is:

**previous** ◀ ▶ **previous** ◀.



## Setting the menu access level

- 1 Press **program** to go to the main menu.
- 2 Select the DISPLAY item using the ◀ or ▶ button.
- 3 Press **next/select** to go to the DISPLAY menu.
- 4 Select the required menu level using the ◀ or ▶ button.
- 5 Press **next/select** to confirm.
- 6 Depending on the selected menu level, a password must be entered.
- 7 Press **next/select** to confirm the password.
- 8 Press **program** to leave the main menu.



---

## Service

This menu is intended only for the Océ service technician.

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## Chapter 9

# Solving problems

*This chapter contains information on how to proceed if problems occur while using the Océ 9400.*





---

## Problem-solving (printer)

This chapter documents problems that may occur with the Océ 9400, and describes how to solve them.

For the printer, there are three types of warnings/errors:

- Warnings
- Operator-recoverable errors (printer)
- Printer-recoverable errors

---

### Printer warnings

Warnings appear in the display. The printer will continue to print, but print quality may diminish.

Warnings	Description
<i>REFILL TONER</i>	User must add toner
<i>CONDITIONING</i>	The printer is measuring toner
<i>SHEET TOO SHORT</i>	The sheet fed into the manual feed is shorter than the print
<i>SHEET NOT FED</i>	Within the specified time-out, no sheet has been fed into the manual feed, the plot is cancelled

## Operator-recoverable errors (printer)

The printer stops immediately when it detects an operator recoverable error, and displays an error message on the operating panel. The user must take action to solve the problem.

Message	Description
<i>ERROR FEED TABLE</i>	Print media in feed table or feed table not closed Remove the print media and/or close the feed table
<i>PAPER REMOVED</i>	Print media was removed from the feed table during a print job
<i>PAPER TOO SHORT</i>	The print media is too short Remove the print media
<i>PAPER JAM</i>	Print media has jammed in the machine Remove the jammed media
<i>FEED TABLE OPEN</i>	The feed table is not closed properly Close the feed table
<i>CUTTER ERROR</i>	The print media is not properly cut Remove the print media
<i>ROLL EMPTY</i>	The selected roll is empty Remove the empty roll and place a new roll of print media in the roll unit
<i>PAPER JAM ROLL</i>	Print media has jammed in the roll unit Remove the print media
<i>ROLLUNIT OPEN</i>	The roll unit is open Close the roll unit
<i>REFILL TONER</i>	Add toner
<i>OPEN ROLLUNIT</i>	Open roll unit to remove print media
<i>CHECK OUTPUT-TRAY</i>	Print media has jammed in the active output tray Remove the jammed print media and press Continue

## Clearing paper jams

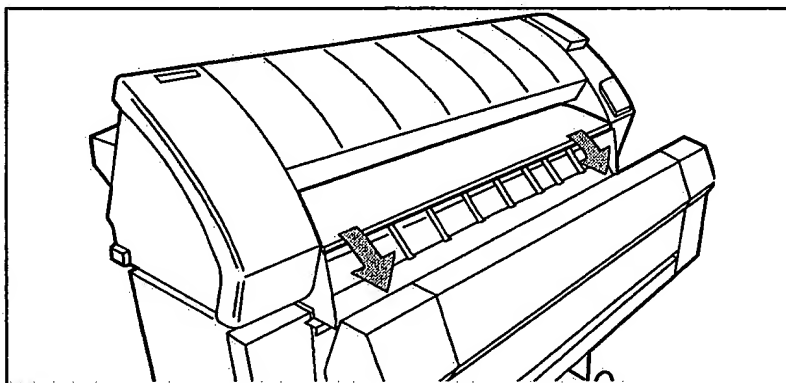
When a jam occurs, a message is displayed on the operating panel. If paper misfeeds occur frequently, make sure:

- The roll(s) are loaded correctly and the media is fed as indicated.
- The correct media is used (see 'Print media that can be used' on page 140).
- No scraps of material are blocking the paper path.



### Clearing paper jams in the media feed section

- 1 Switch the printer off.
- 2 Open the cover of the roll unit.
- 3 Lower the feed table, using the two catches on the front of the printer, under the feed table (see figure 34).



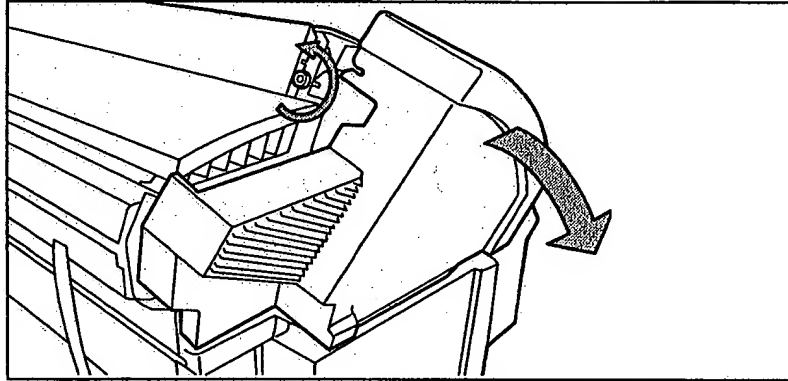
[34] Lowering the feed table

- 4 Remove the jammed material.  
*Note: Check thoroughly to make sure that no scraps of material are left behind.*
- 5 Close the feed table.
- 6 Close the cover of the roll unit.
- 7 Switch the printer on.

If the paper jam cannot be cleared by opening the feed table, then open the fuser section.

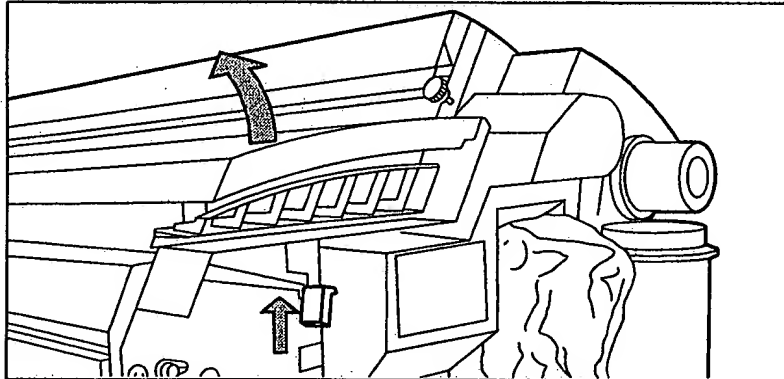
▼ **Clearing paper jams in the fuser section**

- 1 Switch the printer off.
- 2 Unscrew the access nut on the left-hand side of the machine and open the cover (see figure 35).



[35] Unscrewing the access nut and opening the cover

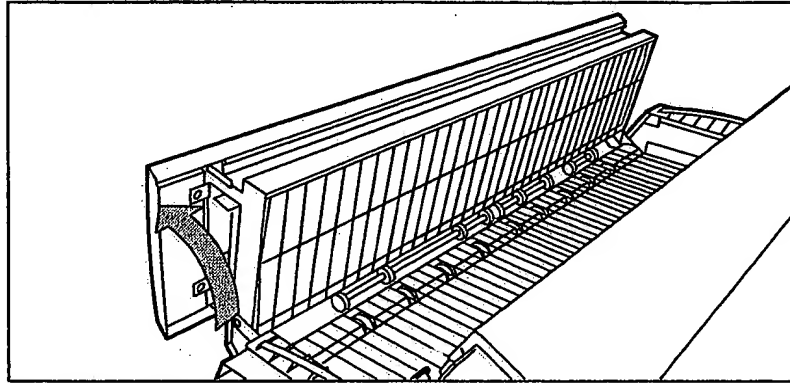
- 3 Lift the green handle (see figure 4).



[36] Lifting the green handle

- 4 Open the fuser unit (see figure 37).

**Caution:** *If the printer has been used recently, the fuser may be hot.*



[37] Opening the fuser unit

- 5 Remove the jammed material.

**Attention:** *Be careful! The toner is not fused.*

- 6 Lift the green handle and close the fuser unit.
- 7 Close the left cover and tighten the access nut.
- 8 Switch the printer on.

## Machine recoverable errors

Machine recoverable errors are indicated by the appearance of a 4-digit error code in the display.



### Solving machine recoverable errors

- 1 Switch the printer off and check the complete paper path (See 'Clearing paper jams' on page 122).
  - 2 Then switch the printer on again.
- If no error number is shown in the display, you can continue printing.

If the machine error remains, call the key operator.

## Problem-solving (copier)

When an error occurs, the scanner operating panel displays information about the nature of the problem.

- if the printer error indicator is on, a jam has occurred in the printer (see 'Problem-solving (printer)' on page 120) for instructions on how to solve the problem.
- if the display shows an error code letter E, followed by an error code number, an original jam has occurred in the scanner (see 'Clearing original jam' on page 126)
- if the display shows a flashing 3-digit error code, a machine error has occurred in the scanner (see 'Operator recoverable errors: scanner' on page 126).

### Scanner error

The machine stops immediately if the scanner detects an error. A flashing error code will be displayed on the scanner operating panel.



#### Solving a scanner error

- 1 Switch the scanner off.
- 2 Now switch it on again.

If no error number now appears on the display, you can continue scanning.

---

## Operator recoverable errors: scanner

Message	Description
<i>E1</i>	Original in scanner when scanner is switched on
<i>E2</i>	Original too long
<i>E3</i>	Stop/Correction button pressed during transport of original

---

## Please wait

If the user wants to scan, but the printer is busy printing files or producing a copy job, the 'please wait' indication will light up. When the printer is ready, this indicator switches off. Scanning will then start.

---

## Printer error

If the printer detects an error, the printer error indicator will light up. The indicator goes off when the error has been resolved. Scanning can then be started.

If a printer error occurs during scanning, the original will be fed in and the scanning procedure will finish. No copy will be made.

---

## Clearing original jam

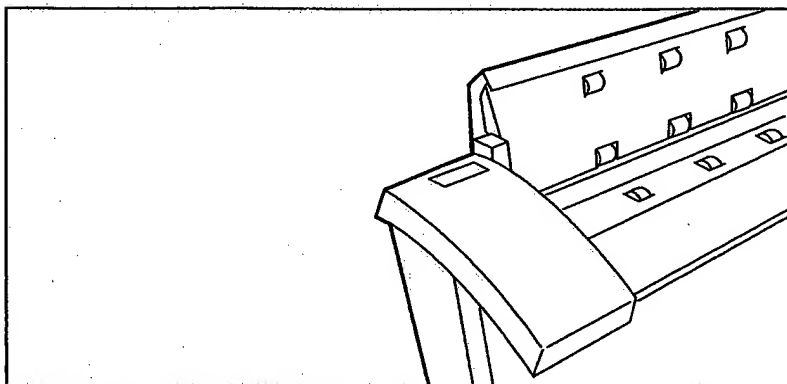
The machine stops immediately if the scanner detects an error. A flashing error code will be displayed on the scanner operating panel. This code consists of a letter E, followed by an error code number. The user has to take action to solve the problem.



### Clearing an original jam

- 1 Unlock the top cover by pushing the front side of the cover down and pulling it towards you.

- 2 Raise the cover (see figure 38).



[38] Opening the top cover of the scanner

- 3 Remove the original.
- 4 Lower the top cover.
- 5 Lock the cover by pushing the front side of the cover down and pushing it back to the rear until you hear a click.  
*Note: Make sure that the cover is closed correctly, to ensure proper transport of originals.*
- 6 Press the 'stop/correction' button. The error message on the panel will disappear.

## Cleaning the glass platen

If the glass platen is dirty or charged with static, it should be cleaned to ensure top quality copies. You can clean the white pressure platen at the same time.

**Attention:** To achieve the best results, we recommend using Océ cleaner 'A'. (Code no. 1068117; Cleaner kit).

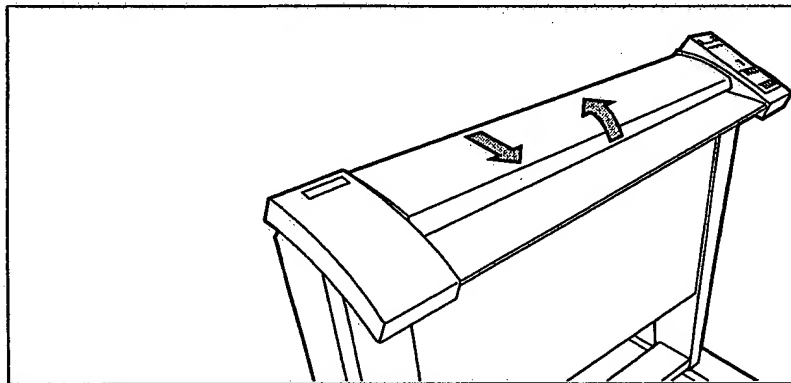


### Cleaning the glass platen and the pressure platen

- 1 Switch the scanner off.
- 2 Unlock the top cover by pushing the front side of the cover down and pulling it towards you.
- 3 Raise the cover (see figure 38).



- 4 Gently clean the glass platen and the white pressure platen with a soft cloth moistened with a small quantity of "Cleaner A" (see figure 39).  
For safety information, see the safety data sheet in Appendix B.



[39] Cleaning the glass platen and the pressure platen

- 5 Lower the top cover.
- 6 Lock the cover by pushing the front side of the cover down and pushing it back to the rear until you hear a click.  
*Note: Make sure that the cover is closed correctly, to ensure proper transport of originals.*
- 7 Switch the scanner on.

**Océ 9400**

*User Manual*

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## Appendix A

### Overview and tables



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## Product specifications (printer)

The Océ 9400 is a wide format, low to mid volume copying and printing system.

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### Printer

<i>Technology</i>	electrophotography (LED head)
<i>Photoconductive drum</i>	organic photoconductor (OPC)
<i>Printing speed</i>	3 m/min (10 feet/min)
<i>Warm-up time</i>	none
<i>Media feed</i>	manual and single or double roll automatic
<i>Toner system</i>	closed
<i>Maximum printable area</i>	max. printable area depends on size of installed memory and file complexity, but possible up to 15 m (49 feet)
<i>Poster mode</i>	increases the density of the copy

---

### Controller

<i>Standard memory</i>	32 MB
<i>Vector data formats</i>	HP-GL, HP-GL/2, CalComp 906/907, VDF, BGL, Edmics
<i>Raster data formats</i>	HP-RTL, Cals type 1, TIFF 6.0 G3 & G4, NIRS, C4-G4
<i>Language sensing</i>	automatic and via display panel
<i>Multicopy</i>	up to 99
<i>Interfacing</i>	automatic switching: RS-232 serial Centronics parallel Ethernet (optional)

### ■ Options

- Automatic 2 roll unit
- Dew preventer
- Memory upgrade to 48 or 64 Mb
- PostScript level 2
- Scan to file
- Ethernet interface
- High capacity delivery tray
- Compact Output Stacker

## Product specifications (scanner)

### Scanner

<i>Free-standing unit</i>	can be used only in combination with printer
<i>Digital retention</i>	up to 19 copies from a single scan
<i>Digital zoom</i>	25-400% in fixed steps or 1% increments
<i>Paper selection</i>	Roll 1, Roll 2 or Manual feed
<i>Automatic Background Compensation</i>	standard on but can be switched off
<i>Leading/trailing edge correction</i>	+80 to -80 mm in steps of 5 mm +3 to -3" in steps of 0.25"
<i>Invert copy</i>	used to copy blue-prints (limited to single copy only, without ABC)
<i>Poster mode</i>	increases the density of the copy

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# Interfaces

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## Centronics protocol

Centronics uses hardware handshaking. The computer sends a STROBE signal to move each byte of data into the printer, at which time the printer signals BUSY. When the transfer is complete, the printer sends ACKNOWLEDGE to the computer and another cycle can begin.

---

## Serial protocols

Two types of computer-to-printer handshaking, (and their variants), are available on the Océ 9400 printer:

- Hardware
- XON/XOFF

Depending on the emulation selected, handshake protocols can be set either through the software or the control panel.

When invoking a handshake protocol manually, the printer offers you the following character transmission handshaking selection:

- CTS2 for hardware handshaking
- XON4 for XON/OFF software handshaking

Your host or software documentation should tell you which handshaking is needed.

- XON4: The printer sends XON when its buffer has enough memory to receive character data. It sends an XOFF character to the computer when its buffer is almost full, indicating that the computer should stop sending characters.
- CTS2: Whenever the printer's buffer has enough memory to accept characters, it activates the CTS signal. It then de-activates the signal when the buffer is full.

**Note:** *Hardware handshaking is enabled using the HP-GL ESC.P3 instruction. Xon/Xoff handshaking is enabled via the software, using the ESC.P1 HP-GL instruction.*



---

## SCSI protocol

When the printer is attached to an SCSI-bus, it behaves as a standard SCSI tape device. SCSI tape commands are used to address the Océ 9400 for uploading.

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## Ethernet protocol

If the printer is equipped with an Ethernet interface, it can be connected to:

- TCP/IP
- IPX (Novell netware)
- Ethertalk network.
- NETBIOS (over TCP/IP).

For additional details, refer to the Ethernet print server user manual.

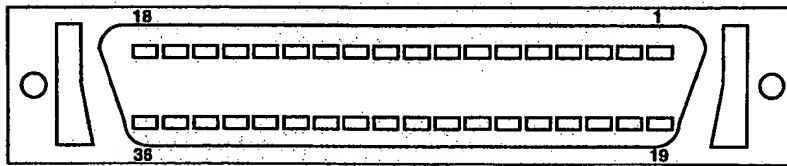
## Centronics port configuration

The Centronics parallel port is located at the rear of the printer. It is an Amphenol 36-pin female mini- connector.

The following table describes the Centronics port pin assignment. For further details, refer to the IEEE P1284 standard.

Printer Pin No.	Signal direction	Name of the signal	
1	Printer to host	BSY	Busy
2	Printer to host	SELECT	Select
3	Printer to host	ACKN	Acknowledge
4	Printer to host	FAULTN	Fault
5	Printer to host	PAPEROUT	Paper error
6	Host to printer	Data 1 (LSB)	Data 1
7	Host to printer	Data 2	Data 2
8	Host to printer	Data 3	Data 3
9	Host to printer	Data 4	Data 4
10	Host to printer	Data 5	Data 5
11	Host to printer	Data 6	Data 6
12	Host to printer	Data 7	Data 7
13	Host to printer	Data 8 (MSB)	Data 8
14	Host to printer	INITN	Initialize
15	Host to printer	STROBEN	Strobe
16	Host to printer	SELECTINN	Select in
17	Host to printer	AUTOFDN	
18	Host to printer	Host Logic High	
19-35		GND	Ground
36	Printer to host	Peripheral Logic High	

STROBE is the dialog signal.



[40] Centronics connector



## Serial port configuration

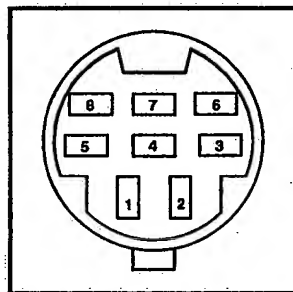
The RS-232/423-C serial port is located at the rear of the printer. It is a DIN 8-pin female mini-connector (for printer in DCE - Data Communications Equipment). It does, however, accept DTE (Data Terminal Equipment) signals when DTE is selected under the PORT sub-menu of the Connections Menu.

The RS-423-C norm is an improved version of the RS-232-C serial connection.

The following table describes the serial port pin assignment.

Printer Pin No.	Signal direction	Name of the signal	
1	Host to printer	DTR	Data terminal ready
2	printer to host	CTS	Clear to send
3	Host to printer	TX	Transmit data
4		GND	Protective ground
5	Printer to host	RX	Received print data
6	Host to printer	RTS	Ready to send
8	Printer to host	DSR	Data set relay

DTR is the dialog signal.



[41] Serial connector

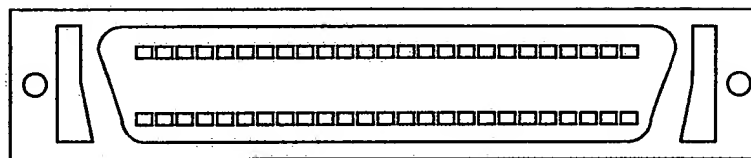
## SCSI port configuration

The SCSI connector is located on the optional SCSI-board at the rear of the printer. It is a Subd 50-pin female mini-connector.

The following table describes the SCSI port pin assignment. For further details, refer to the ANSI X3.131 standard.

Printer Pin No.	Name of the signal
1	GND
2	GND
3	GND
4	GND
5	GND
6	GND
7	GND
8	GND
9	GND
10	GND
11	GND
12	GND
13	GND
14	GND
15	GND
16	GND
17	GND
18	GND
19	GND
20	GND
21	GND
22	GND
23	GND
24	GND
25	GND
26	SD10_N
27	SD10_N
28	SD10_N
29	SD10_N
30	SD10_N
31	SD10_N

Printer Pin No.	Name of the signal
32	SD10_N
33	SD10_N
34	SD10_N
35	GND
36	GND
37	GND
38	TERM_PWR
39	GND
40	GND
41	ATNO_N
42	GND
43	BSYO_N
44	ACKO_N
45	SELI_N
46	MSGO_N
47	SELO_N
48	CDO_N
49	REQO_N
50	IOO_N



[42] SCSI connector

## Originals that can be used

### Overview of originals

<i>Originals</i>	<i>Minimum</i>	<i>Maximum recommended</i>
Width	210 mm (8.5")	1020 mm (40"), of which an image width of 914 mm (36") can be copied without loss of information
Length	210 mm (8.5")	Guaranteed copy quality 3 meters or 10 feet. Maximum length limited by the worst-case speed difference between scanner and printer; at least > 6m.

### Points of attention concerning originals to be processed

<i>Curls</i>	Originals with a curl diameter > 75mm can easily be scanned. If the diameter of the curl is < 75 mm, help from the operator is required. It is advisable to uncurl the leading edge to prevent problems. With originals with a curl diameter < 50 mm, a carrier sheet may be used (not thicker than 0.3 mm) Dog-ears should be straightened out, especially on originals with reinforced edges.
<i>Damaged originals</i>	Torn originals should be repaired with tape. Badly damaged originals can be copied by inserting them into carrier sheets.
<i>Miscellaneous</i>	The leading edge of the original must be straight. The maximum permitted thickness of the original is 1.5 mm. Filing strips with a thickness 3 mm. Any paper clips, staples etc. should be removed from the original before feeding it into the scanner. Creased leading edges and trailing edges should be straightened out. Paste-ups should be taped down 100% at all edges; a carrier sheet may be used (no thicker than 0.3 mm) Folded originals should be straightened out before feeding them in. Wrinkles and folds may be visible on the copy. Feed in plotter originals in carrier sheets.

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## Print media that can be used

Océ machines and media are designed to complement each other for optimal quality and performance. We therefore recommend using only approved Océ media in the Océ 9400.

A full list of Océ media suitable for use in the Océ 9400, (including plain paper, transparent paper, colored papers and various polyester films), is available from your Océ representative.

The maximum length of the print media which can be used in the Océ 9400 is 150 m when using 75 g/m<sup>2</sup> media and 150 m when using 110 g/m<sup>2</sup>. The diameter of the roll holder is 3 inches.

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Paper formats	Width
A0	841 mm
A1	594 mm
A2	420 mm
A3	297 mm
E	34"
D	22"
C	17"
B	11"
E+	36"
D+	24"
C+	18"
B+	12"
30"	30"
500 mm	500 mm
700 mm	700 mm
B1	707 mm (28")

---

#### Overview of print media

<i>Print media</i>	<i>Recommended</i>	
Plain paper	75 g/m <sup>2</sup>	
Transparent paper	110 g/m <sup>2</sup>	
Vellum	20 lbs	
Polyester film	3.5 mil	
ECO papers	75 g/m <sup>2</sup>	
	<i>Minimum</i>	<i>Maximum</i>
Width	279 mm (11")	914 mm (36")
Length	420 mm (17")	Guaranteed print quality up to ca. 3 meter or 10 feet. This is also the limit for prints and multiple copies made on the Océ 9400. For single copies/prints made on the Océ 9400 printer or hybrid, the maximum length may be up to 15 meters, but the operator must then accept that the copy/print quality may not conform on all quality aspects.

---

**Attention:** *Paper and transparent media are sensitive to high humidity. To ensure optimal copy quality, keep all copy media in its original packaging, especially overnight.*

---

**Attention:** *Curled sheets of print media must be fed in with the curl facing down to avoid damaging the drum.*

## Overview of standard zoom formats

**Standard zoom fixed steps, ISO**

<i>Original</i>	<i>Copy</i> <i>A0</i>	<i>A1</i>	<i>A2</i>	<i>A3</i>	<i>A4</i>
<i>A0</i>	100	71	50	35	25
<i>A1</i>	141	100	71	50	35
<i>A2</i>	200	141	100	71	50
<i>A3</i>	283	200	141	100	71
<i>A4</i>	400	283	200	141	100

**Standard zoom fixed steps, ANSI**

<i>Original</i>	<i>Copy</i> <i>34</i>	<i>22</i>	<i>17</i>	<i>11</i>	<i>8 1/2</i>
<i>34</i>	100	65	50	32	25
<i>22</i>		100		50	
<i>17</i>	200	129	100	65	50
<i>11</i>		200		100	
<i>8 1/2</i>	400	259	200	129	100

**Standard zoom fixed steps, Architectural**

<i>Original</i>	<i>Copy</i> <i>36</i>	<i>24</i>	<i>18</i>	<i>12</i>	<i>9</i>
<i>36</i>	100	67	50	33	25
<i>24</i>		100		50	
<i>18</i>	200	133	100	87	50
<i>12</i>		200		100	
<i>9</i>	400	267	200	133	100

## Overview of standard sizes for using standard cut

ISO	ANSI	ARCH
A0 (841x1189 mm)	34" (34x44")	36" (36x48")
A1 (594x841 mm)	22" (22x34")	24" (24x36")
A2 (420x594 mm)	17" (17x22")	18" (18x24")
A3 (297x420 mm)	11" (11x17")	12" (12x18")
34" (34x44")	36" (36x48")	34" (34x44")
22" (22x34")	24" (24x36")	22" (22x34")
17" (17x22")	18" (18x24")	17" (17x22")
11" (11x17")	12" (12x18")	11" (11x17")
36" (36x48")	30" (30x42")	30" (30x42")
24" (24x36")	A0 (841x1189 mm)	A0 (841x1189 mm)
18" (18x24")	A1 (594x841 mm)	A1 (594x841 mm)
12" (12x18")	A2 (420x594 mm)	A2 (420x594 mm)
30" (30x42")	A3 (297x420 mm)	A3 (297x420 mm)
500 mm (500x707 mm)	500 mm (500x707 mm)	500 mm (500x707 mm)
700 mm (700x1000 mm)	700 mm (700x1000 mm)	700 mm (700x1000 mm)
B1 (707x1000 mm)	B1 (707x1000 mm)	B1 (707x1000 mm)

**Note:** This tabel represents the order of standard sizes displayed on the scanner when using standard cut. The order depends on the setting which is defined on the printer operating panel (see 'The printer operating panel' on page 11).



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**Océ 9400**

*User Manual*

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## Appendix B

### Safety information



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## General safety information

For questions about Océ products which are related to health, safety and the environment, please contact your Océ organisation at the address listed in the last appendix of this manual.

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### Radio interference




**Note:** *This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the user manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.*

FCC = Federal Communications Commission.

---

### Symbols

Stickers with the following illustrations are used in this machine to indicate parts which should not be touched due to high voltage or extreme heat, or parts which require extra attention:

Symbol	Meaning
	Caution, high voltage
	Caution, high temperature
	Caution

# Instructions for safe use

**Attention:** *Products designed by Océ are developed and tested in conformance with the strictest international safety standards. However, to help assure the safe operation of these products, it is important that:*

- you carry out maintenance only as far as prescribed in this manual.
- you observe the following safety recommendations:

## Maintenance

- Do not remove any screws from fixed panels.
- Do not place any liquids on the machine.
- Use maintenance materials or other materials for their original purpose only. Keep maintenance materials away from children.
- Do not mix cleaning fluids or other substances.
- To avoid damage and the risk of personal injury, all modifications to Océ equipment are strictly reserved for properly qualified and trained service technicians.

## Power connection

- If unforeseen circumstances force you to re-install the machine without the assistance of Océ Service, make sure that the machine is connected to a power outlet which is equipped with a fuse or circuit breaker with the appropriate capacity.
- Do not bridge any mechanical or electrical circuit breakers.
- Do not use an extension cord to connect the machine.
- This equipment is not designed for connection to an IT power system. (An IT power system is a voltage network in which the neutral wire is not connected to earth.)
- For equipment connected via a wall outlet: place the machine close to an easily accessible wall outlet.
- For equipment connected to the electrical system via a permanent connection: make sure that the disconnect device in the permanent connection is easily accessible.

## Ventilation and location

- Do not block the machine's ventilation openings.
- Make sure that the machine is placed on a level, horizontal surface which is strong enough to bear the full weight of the machine. See the Océ 9400 safety data sheet in this appendix for information about the weight of the machine.




- Make sure that there is sufficient space around the machine. This facilitates both proper loading of materials and equipment maintenance.
- Do not place the machine in a room which is subject to excessive vibration.
- Do not place the machine in a room that is too small and insufficiently ventilated. See the Océ 9400 safety data sheet in this appendix for information about space and ventilation requirements.

#### **General**

- Always use materials recommended by Océ and developed for this Océ machine. Materials not approved by Océ may cause damage to your machine.
- Do not use the machine if it is making unusual sounds. Remove the plug from the power outlet or turn off the switch in the fixed connection to the electrical system and contact Service.

# Safety data sheet, Océ 9400 scanner

At the moment this manual was published the safety data sheet of the Océ 9400 was unavailable. For a copy of this sheet, please contact your local Océ organization.

PRODUCT SAFETY DATA SHEET	
<div style="text-align: right;">  </div>	
<div style="display: flex; justify-content: space-between;"> <span>Océ 9400 Scanner</span> <span>           Number: E-622-e-US-ES            Date: January 1996         </span> </div>	
Model	Océ 9400 scanner
Description	Freestanding scanner, maximum original size 1020mm * 9000mm
Max. process speed	3m/min
Dimensions	<div style="display: flex;"> <div style="flex: 1;">           Width Depth Height         </div> <div style="flex: 1;">           1240 mm 616 mm 1105 mm         </div> </div>
Weight	60 kg
Voltage	120 V
Frequency	60 Hz
Current-rated	1,1 A
Current-max	2 A
Power consumption, operation	90 W
Power consumption, standby	3,5 W
Main connection	Cable with plug
Safety class	I (IEC 636) Protective earth connection
Protection class	IP 20 (IEC 629)
Sound pressure level (at operator position)	<div style="display: flex;"> <div style="flex: 1;">Standby: 0 dB(A)</div> <div style="flex: 1;">In operation: mainbody 48 dB(A); impulse A L<sub>1</sub> = 5 dB(A)</div> </div>
Sound power level	0 dB(A)
Radio interference	Complies with FCC rules and regulations, part 15 class A
Radiation	Below the Threshold Limit Value for UV radiation (TLV list of ACGIH)
Heat emission	Standby 4 W; In operation 60 W
Ozone emission	Not Applicable
Room volume	No special requirements
Room ventilation	
Consumables	Not applicable
Marking	<div style="display: flex; justify-content: space-between;"> <div>           Listed according to standard UL 1950   </div> <div>           Listed according to standard            CANCRA-C22.2 No. 950   </div> </div>
Additional safety information	None

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## EPA ENERGY STAR®

Océ-Technologies B.V. has joined the ENERGY STAR® Program of the United States Environmental Protection Agency (EPA). The purpose of the Energy Star Program is to promote the manufacturing and marketing of energy-efficient equipment, thereby potentially reducing combustion-related pollution.

Using the energy management features outlined below prevents unnecessary power consumption, which helps to prevent air pollution from electricity generating plants and saves money on your utility bills.

The Océ 9400 is a multi-function device which includes the following separate units:

1. Océ 9400 printer
2. Océ 9400 scanner

As an ENERGY STAR® Partner, Océ-Technologies B.V. has determined that this multi-function device model meets the ENERGY STAR® guidelines for energy efficiency.

The EPA ENERGY STAR® criteria for this multi-function device involve the following features:

**sleep mode** The use of the sleep mode feature offers economic and environmental benefits. This multi-function device is shipped with the sleep mode default time set to 1 minute, which means that the device automatically enters the sleep mode 1 minute after the last copy/print is made. The sleep mode default time is a fixed value and cannot be adjusted. The sleep mode recovery time is less than 1 second, after which copying or printing can be resumed ("instant copying/printing").

**recycled paper** The use of recycled paper also benefits the environment. This multi-function device is designed to use recycled paper. Product literature about recommended types of recycled copier paper can be obtained from your local Océ company or Océ Headquarters (Océ-Technologies B.V.) in Venlo, the Netherlands.



ENERGY STAR<sup>®</sup> is a registered U.S. trademark



**Océ 9400**

*User Manual*

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## Appendix C

### Miscellaneous



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## How to read this manual

The consistent style that is used in this manual enables you to quickly become familiar with the use of this manual and ultimately the Océ 9400.

**Description** Each section or subsection contains a description of the feature or operation identified in the title. It might also include possible applications, as well as any guidelines that you should bear in mind.

**Procedures** A description is followed by a procedure. A procedure always begins with a phrase which briefly describes the procedure, followed by a series of numbered steps that take you, step by step, through all phases of performing the operation.

**Figures and tables** Figures and tables are titled and numbered sequentially throughout this manual. Figures include pictures of product components, screen dumps, examples, and diagrams of concepts discussed in the description.

**Attention getters** There are several types of information to which we draw your attention. This information is classified as follows:

**Note:** *In a 'Note', information is given about matters which ensure the proper functioning of the machine or application, but useful advice concerning its operation may also be given.*

---

**Attention:** *The information that follows 'Attention' is given to avoid damage to your copy or original, the copier or printer, data files, etc.*

---

**Caution:** *The information that follows 'Caution' is given to prevent you suffering personal injury. .*

## User survey

Did you find this manual to be accurate?

- ☐ Yes
- ☐ No

Were you able to operate the product after reading this manual?

- ☐ Yes
- ☐ No

Does this manual provide adequate background information?

- ☐ Yes
- ☐ No

Is the format of this manual convenient in size, easy to read and layed out well?

- ☐ Yes
- ☐ No

Did you find the information you were looking for?

- ☐ Always
- ☐ Most of the times
- ☐ Sometimes
- ☐ Not at all

How did you find the information you were looking for?

- ☐ Table of contents
- ☐ Index
- ☐ Neither

Are you satisfied with this manual?

- ☐ Yes
- ☐ No

Thank you for evaluating this manual.

If you have any other comments or concerns, please explain them on the following page.

7114194

**Comments:**

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**Date:**

This reader's comment sheet is completed by:

**Name (optional):**

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**Company:**

**Phone:**

**Address:**

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Please return this sheet to:

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# Index

---

## A

automatic language sensing 80  
automatic roll switch 47  
autoposition 105

---

## B

baud rate 25  
bitmap buffer 33  
bits combination 26

---

## C

CalComp 92  
centronics port 23  
centronics protocol 132  
checksum 93  
cleaner A 128  
cleaning  
    glass platen 127  
    pressure plate 127  
compact output stacker 10, 130  
connector  
    centronics 134, 135  
    SCSI 137  
    serial 136  
copy process  
    starting 53  
cut method  
    programming 69  
cutting paper 40

---

## D

demo print 71  
designjet  
    compatibility 90

double synchronization 96  
dump configuration 111

---

## E

end of message 94  
end of plot time-out 102  
end of print 102

---

## F

feeding the original 53  
flush media saver 106  
framing 26  
full menus 116

---

## G

glass platen 127

---

## H

handshake protocol 25

---

## I

Image Logic Technology 52  
input buffer 32  
inter-character delay 28  
interfaces 132

---

## L

language recognition 81  
leading edge 70  
    programming 71  
locked menu 116

---

## M

media saver 103  
media saver plot size 107  
media saver time-out 106  
menu levels 116  
merge mode  
    HP-GL 87, 90, 94

---

## N

nesting 103

---

## O

on/off switch printer 18  
on/off switch scanner 18  
operating panel 16  
operating panel printer 11  
operating panel scanner 15  
origin 92  
original guide 53

---

## P

page advance  
    HP-GL 87  
    HP-GL/2 89  
paper formats 140  
paper jam 122  
parity 26  
pen priority  
    CalComp 93  
    HP-GL/2 89  
    Océ 85  
pen settings 79  
plot center 70  
port configuration  
    centronics 134  
    serial 136  
port type 27  
Poster mode 65  
PostScript  
    data format selection 98

manual data format selection 98

page layout 99

page size 99

PostScript option 98

pressure plate 127

print media 36, 140

print origin

    CalComp 92

    HP-GL 86

    HP-GL/2 88

    Océ 83

print settings 78

problems 120

product specifications 130

program

    auto switch 47

    automatic roll selection 37, 47

    default paper feed 46

programming media settings 45

---

## R

refill toner 48

replot 108

rotation 112

---

## S

safety information 147

scaling 112

scan to file 74

scanner feed table 53

SCSI connector 137

SCSI port 30

serial connector 136

serial port 24

serial protocols 132

short menus 116

standard cut 52, 69, 70

standard mode 17

step size 96

    CalComp 96

    Océ 84

stop bits 26

switching off



copier 19  
printer 20  
switching on  
copier 18  
printer 20  
synchro cut 52, 69, 70  
synchro cut mode 17  
synchronization code 95

---

## T

top cover 126, 127  
trailing edge 71  
programming 71  
transmission speed 23  
turnaround delay 28

---

## U

upload 74

---

## W

waste toner bag 50

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